Fishery Data Series No. 12-44

Subsistence and Personal Use Salmon Harvests in the Alaska Portion of the Yukon River Drainage, 2006

by

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and

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August 2012

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

FISHERY DATA SERIES NO. 12-44

SUBSISTENCE AND PERSONAL USE SALMON HARVESTS IN THE ALASKA PORTION OF THE YUKON RIVER DRAINAGE, 2006

by

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ABSTRACT

This annual study estimates subsistence and personal use salmon harvest within the Alaska portion of the Yukon River drainage. Most Yukon Area communities have no regulatory requirements to report their subsistence salmon harvest. For these remote communities, the Alaska Department of Fish and Game uses a voluntary survey program to estimate subsistence salmon harvest. Harvest information was collected through postseason household interviews, follow-up telephone interviews, postal questionnaires, and harvest calendars. Stratified random sampling techniques were used to select Yukon Area households to be interviewed. In 2006 a total of 1,057 households were contacted in 33 communities. Data from surveyed households were expanded to estimate the harvest of unsurveyed households. In more accessible portions of the Yukon Area, fishermen are required to document their harvest on a subsistence or personal use permit. In 2006, 466 subsistence and personal use permits were issued, with 97% returned. Of these returned permits, 301 reported fishing. This report also documents subsistence fish given to households from various test fish projects. The total subsistence and personal use harvest throughout the Yukon Area was estimated to be 48,682 Chinook *Oncorhynchus tshawytscha*, 115,340 summer chum *O. keta*, 84,335 fall chum *O. keta*, and 19,985 coho *O. kisutch* salmon. The primary fishing gear types used were set gillnets (49%), drift gillnets (42%), and fish wheels (8%). Approximately 1,738 households own 5,885 dogs and 226 households fed an estimated 75,648 salmon to dogs.

Key words: Tanana River, Yukon River, Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho salmon *O. kisutch*, northern pike *Esox lucius*, inconnu *Stenodus leucichthys*, whitefish *Coregonus* spp., harvest, personal use, subsistence

INTRODUCTION

Since 1961, the Alaska Department of Fish and Game (ADF&G) has collected information on subsistence salmon harvests in the Yukon Area (ADF&G 2002). Subsistence harvest estimates provide a record of historic harvest and trends. Annual documentation of the subsistence salmon harvest is used in conjunction with commercial, sport, and personal use harvests, and escapement estimates to calculate total run size. Harvest and escapement information combined with age composition are used to construct brood tables and estimate the number of returning offspring per spawner for some stocks. Subsistence harvests provide information that ADF&G uses to forecast future salmon returns and provide an outlook on subsistence fishing in the coming year.

The Yukon River drainage supports 5 species of Pacific salmon: Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, coho *O. kisutch*, pink *O. gorbuscha*, and sockeye *O. nerka* salmon. The majority of subsistence and personal use harvests are made up of Chinook, chum, and coho salmon. The chum salmon return consists of 2 temporally and genetically distinct stocks: early or summer chum and late or fall chum. Subsistence salmon fishing activities in the Yukon Area typically begin in late May and continue through early October. Salmon fishing in May and October is highly dependent upon river ice conditions.

Yukon Area communities have a long tradition of harvesting salmon for subsistence use. Fishing activities are usually based from a fish camp or a home community. Extended family groups, representing 2 or more households, often work together to harvest, cut, and preserve salmon for subsistence use. Some households from Yukon River tributary communities, such as Shageluk and Venetie, may operate or share in the operation of fish camps along the mainstem Yukon River (Figure 1). Subsistence salmon harvested for human consumption are commonly dried, smoked, canned, or frozen.

Residents of the communities in the Yukon River drainage are primarily of Yupik Eskimo and Athabascan Indian descent. Excluding the greater Fairbanks area (approximately 88,000 people), the 2006 census indicated the population of rural Yukon Area residents within the Denali Borough, Southeast Fairbanks, Yukon-Koyukuk, and Wade Hampton Census Areas was approximately

22,000 people. The rural population in the Yukon Area remained relatively stable around that time at approximately 21,600 people according to the 5-year (2001–2005) average[1].

Subsistence and personal use fishermen in the Yukon Area primarily use drift gillnets, set gillnets, and fish wheels to harvest salmon. Set gillnets are used throughout the Yukon Area, whereas under state regulations, drift gillnets are only allowed from the mouth of the Yukon River to approximately 18 miles below the community of Galena (River Mile 530) to harvest salmon. Drift gillnets are allowed under federal permits in Subdistricts 4-B and 4-C (near the communities of Galena and Ruby). These drift areas are only open for a portion of the summer during regulatory openings. Although fish wheels are a legal gear type for subsistence fishing throughout the drainage, they are essentially used only in the Upper Yukon Area. Water conditions and fishing locations are more suitable for the operation of fish wheels in the Upper Yukon Area, which also contains a better supply of logs and young spruce trees used for fish wheel construction. In 2006, residents in several Lower Yukon Area communities were asked about their gear types and mesh sizes used to harvest Chinook salmon.

Portions of the Yukon Area are open for commercial fishing and residents may participate in both commercial and subsistence salmon fisheries. In some areas, subsistence fishing is separated from commercial fishing by closures before, during, and after commercial periods, while in other areas subsistence and commercial fishing may occur concurrently. Separation of fishing times allows for better enforcement of commercial regulations and management of the fisheries. Salmon or their eggs harvested during subsistence openings cannot be legally bought or sold under State of Alaska regulations, but commercially harvested salmon may be retained for subsistence use.

Subsistence fishermen are not required to have a fishing permit in most of the Yukon River drainage. However, permits are required for subsistence or personal use fishing in the Tanana River and parts of the Yukon River that are accessible by road (Figure 1). In the communities along the Yukon River covered by the survey, the selected households' harvests are used to estimate subsistence harvests for the entire community including unsurveyed households. In contrast, fishermen in permit areas are required as a condition of their permit to submit harvest records, and their reports are not expanded to estimate harvest from those that do not return permits. Fishermen in permit areas are more likely to be from other areas of the state and not reside in communities within permit areas, making a household survey ineffective.

A personal use fishery was implemented in 1986 and currently takes place in the Fairbanks Nonsubsistence Area (Figure 2). The nonsubsistence area was established in 1992 (Appendix C) due to the potential heavy demand urban fishermen could place on the resource. In the nonsubsistence area, fishermen must possess a personal use household permit and a resident sport fish license. State regulations dictate that personal use fishing has a lower priority than subsistence fishing similar to that of commercial and sport fisheries. The personal use fishery has a fishery limit of 750 Chinook and 5,000 chum salmon taken through August 15 and 5,200 chum and coho salmon combined taken after August 16. Fishermen who harvested salmon within a portion of Subdistrict 6-B, or all of Subdistrict 6-C, were required to call in their catch on a weekly basis for inseason fishery management purposes.

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[1] Labor Department Releases State, Borough and Place 2006 Populations. [Internet]. Alaska Department of Labor and Workforce Development, Commissioner's Office Press Release No. 07-29 [issued 2007 Jan 25; cited 2010 Jan]. Available from: http://labor.state.ak.us/news/2007/news07-29.pdf (Accessed July 2012).

There is usually little wastage of fish taken for subsistence purposes, although poor weather conditions may cause some fish to spoil during processing and some fish are lost to disease (e.g. *Ichthyophonus*) or scavengers. Households may harvest additional salmon to make up for lost fish or be unable to meet subsistence needs if salmon were lost after the fishing season. Generally, the number of salmon lost each year is less than 2% of the total salmon harvest.

In addition to human consumption, salmon are fed to sled dogs and other dogs. Sled dogs are used for recreation, transportation, and as haul animals. Small Chinook (jacks), summer chum, fall chum, and coho salmon are primarily harvested to feed dogs in the Upper Yukon Area (Andersen and Scott 2010). Most of the subsistence salmon used for dog food are dried summer chum salmon or "cribbed" (frozen in the open air) fall chum and coho salmon. The practice of keeping sled dogs is more common in the Upper Yukon Area than in the Lower Yukon Area. During the active fishing season households in all areas feed scraps from salmon processing to dogs. Relatively few whole fresh salmon are fed to dogs in the Lower Yukon Area, but, due to the larger numbers of dogs in the Upper Yukon Area, harvesting salmon for dogs throughout the summer is more common. A gradual reduction in the need for salmon as dog food began around 1930, when airplanes began replacing sled dogs as the primary mail and supply carrier. This decline accelerated in the 1960s with the introduction of snow machines to Interior Alaska (Andersen and Scott 2010). Beginning in the early 1980s, there was a renewed interest in recreational use and racing of sled dogs, and the number of subsistence salmon harvested for dog food increased. However, from 1991 to present day there has been a decline in the number of households with dog teams (Andersen and Scott 2010). The decline is due in part to poor chum salmon runs from 1998 to 2002 combined with the steep rise in cost of equipment (boat, motor, nets, fuel) needed to harvest fish for dog food.

Concerns about subsistence harvests in the Yukon River drainage have existed since at least the 1920s. Commercial fishing operations were first recorded in Canada from the Yukon Territory in 1903 and in the Lower Yukon Area in 1918 (Walker et al. 1989; Whitmore et al. 1988). Large commercial harvests from 1918 to 1922 prompted a complete closure of commercial fishing in the Lower Yukon Area from 1925 to 1931 to protect upriver subsistence fisheries. Starting in 1958, information on subsistence salmon harvests in the Yukon River was collected by the State of Alaska, however survey methods from 1958 to 1960 were not documented. Methods from 1961 to 1987 varied from year to year, and included a 1961 survey by 2 ADF&G aides who traveled by boat from the mouth of the Yukon to Dawson City enumerating fish on drying racks and in smoke houses (Pennoyer et al. 1962). In 1989, survey methodology was implemented utilizing comprehensive household lists and harvest groups for households which were classified by whether or not they usually fished for salmon (Holder and Hamner 1990). In 1990, the current harvest groups were implemented, further categorizing fishing households as 'Light', 'Medium', or 'Heavy' harvesters and are based on each households harvest history (Holder and Hamner 1991).

The statistical methods and survey questionnaire have evolved over the years. An example of changes to a particular question addresses whether households were able to harvest enough salmon for subsistence. Beginning in 1992, ADF&G asked surveyed households whether subsistence salmon needs were met (yes/no), but did not ask about needs met by species. In 2000, a question was added about the quality of the run (very good, average, or very poor) by species. A general assumption was made that the "needs met" and "run size" were linked, in that a higher percent needs met suggests that the run was sufficient to provide for most subsistence needs. In 2003, the "needs met" (yes/no) and "quality of run" questions were combined. Since

2003 households have been asked to estimate what percentage of their needs for each salmon species (Chinook, summer chum, fall chum and coho salmon) were met that year.

The 2006 subsistence salmon harvest survey and permit programs collected quantitative information on salmon harvest by species, gear types used to harvest salmon, harvest distribution, miscellaneous species harvest, number of dogs and salmon fed to dogs. Qualitative information was also collected from households about salmon health and quality, subsistence fishing success, and fishery concerns. The primary method of estimating Yukon Area subsistence harvest is the annual postseason salmon harvest survey. Using a combination of survey and permit information, this report documents the estimated subsistence and personal use harvests within the Alaska portion of the Yukon River drainage. State regulations dictate that subsistence is the highest priority use of salmon and subsistence is a primary consideration in fishery management actions.

STUDY AREA

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1). For management purposes, the Yukon Area is divided into 7 districts and 10 subdistricts. The Lower Yukon Area consists of coastal waters and the Yukon River drainage from its mouth to Old Paradise Village (river mile 306) and is composed of Districts 1, 2, and 3. The Upper Yukon Area consists of the Yukon River drainage upstream of Old Paradise Village to the Canada border (river mile 1,224) and is divided into Districts 4, 5, and 6. Upper Yukon Area includes 3 large (>400 miles) silt laden tributaries where harvests occur: Koyukuk, Tanana and Porcupine rivers. The Coastal District includes the remainder of coastal Yukon Area waters not included in District 1. In this report the difference between the designations "Yukon River" and "Yukon Area" is that the Yukon Area includes the Coastal District. Yukon River totals apply to data considered for the U.S./Canada border commitments and Yukon Area refers to the management area for which this report applies. The harvest from Coastal District communities contain fish not necessarily Yukon River bound (Kerkvliet 1986). Two communities, within the Yukon Area, not included in this harvest survey include Chevak and Arctic Village which based on their proximity to the Yukon River proper harvest very few salmon.

OBJECTIVES

The objectives of the study include the following:

1. Update community household lists to provide the basis for stratified random sampling of fishing and non-fishing households sufficient to support community harvest estimates, and estimate the number of people in each surveyed community.
2. Estimate the number of salmon and nonsalmon fish species harvested and used for subsistence in the Yukon Area, by community, using household surveys, harvest documented on subsistence and personal use permits, commercial fisheries reports of salmon taken but not sold, and counts of salmon given to communities from test fish projects.
3. Estimate the number of salmon harvested from each fishing district and subdistrict in the Yukon Area.
4. Document gear types used by Yukon Area subsistence and personal use fishermen.
5. Determine relative percent success of households in meeting subsistence salmon needs.
6. Document the number of dogs within Yukon Area communities and salmon fed to dogs.

In addition, the investigators documented comments and concerns conveyed by subsistence users during household surveys. In 2006, a one-time survey of gear mesh sizes used by subsistence fishermen for Chinook salmon harvests in the communities of Alakanuk, Emmonak, Kotlik, Nunam Iqua, and Scammon Bay was conducted.

METHODS

DEFINITION OF SUBSISTENCE AND PERSONAL USE HARVEST

Total subsistence and personal use harvest in the Alaska portion of the Yukon River drainage includes fish harvested for direct personal or family consumption (Appendix C), fish distributed to individuals from various test fisheries, and "commercial related" fish commercially taken but not sold and retained for subsistence and personal use. Salmon that have been sold commercially and then returned to fishermen by the buyer/processor, such as carcasses with un-marketable flesh or left over from roe fisheries, are not added to household harvest totals.

HARVEST SURVEY INSTRUMENTS

Total number of salmon harvested for subsistence and personal use fisheries was estimated using the permit programs, harvest calendars and postcards, and the household surveys. District 5 contains both survey and permit areas (Figure 2). A combination of data collection methods was used to estimate harvests in this area. Harvests from the community of Stevens Village were primarily estimated from surveys. In unsurveyed District 5 communities (Rampart, Circle, Central, Eagle) unexpanded permit information was used to assess harvest.

Permit Program

In communities along the entire Tanana River drainage (District 6) and where the Yukon River is accessible by the Alaska Highway road system (portions of District 5), households must obtain subsistence or personal use fishing permits issued at the ADF&G offices in Fairbanks, Delta Junction, and Tok. In addition, permit applications for the current season were mailed to all fishermen who returned their permits from the previous season. For residents of communities outside the Fairbanks area, subsistence permit applications were mailed with a postage paid return envelope and dates a department representative would visit their community. In 2006, permit issuing trips were conducted in the communities of Central, Circle, Delta Junction, Dot Lake, Eagle, Manley Hot Springs, Minto, Nenana, Northway, Rampart, Tanacross, and Tok (Figure 1).

Permit holders were required to keep a record of their daily fish harvest on the permit and return it to ADF&G within 10 days of the expiration date (October 15 for salmon and December 31 for non-salmon permits). Households that did not report their harvest were mailed up to two reminder letters. Additionally, households that did not respond to the reminder letters were contacted by telephone.

Harvests of permit communities were estimated by summing harvests of all permit holders who returned their permit, returned a completed reminder letter, or verbally reported their harvest information. These results were not expanded to estimate harvest by permit holders who did not return their permits. Commercially harvested salmon reported as taken but not sold on fish tickets from permit areas were added to the community where the harvest occurred (Table 1).

Stevens Village is uniquely situated just outside the boundary of a permit area on the Yukon River. Many residents acquire a permit to fish between the Haul Road Bridge and the boundary downstream of the community; however, most residents fish outside of the permit area. Consequently, Stevens Village harvest is estimated by using both returned permits and the household survey. The household survey is used to estimate subsistence harvest; permits are occasionally used to supplement incomplete survey data. Information from Stevens Village permits is reported in permit tables and is not added to the subsistence harvest estimates.

Fishermen in the community of Eagle were asked to note on their permit how many salmon were harvested above and below the Eagle sonar project located near the community of Eagle in the permit area of Subdistrict 5-D (Figure 1). Follow-up phone calls were made to fishermen postseason to verify gear types and locations of harvest by species.

Subsistence Harvest Calendars

Prior to the salmon fishing season, subsistence harvest calendars were distributed to households in surveyed communities from the Coastal District, Districts 1–4, and a portion of District 5. Calendars, in which fishermen record their daily salmon harvest by species, were primarily used to help fishermen remember their harvest numbers and provide information on timing of subsistence harvests by species.

In May 2006, 1,570 calendars (951 to Lower Yukon Area and 619 to Upper Yukon Area) were mailed to all households except those in the *Do Not Fish* category. Calendars were also mailed to households with a history of subsistence fishing in the community of Rampart, and extra calendars were available upon request. In an effort to increase the number of calendars returned during community surveys, fliers were sent to community post offices, stores, schools, or city offices to remind fishermen to have their harvest calendars available for the surveyors. Everyone who returned a properly completed 2006 harvest calendar before January 1, 2007, became eligible to win one of two $100 lottery prizes.

POSTSEASON SUBSISTENCE HOUSEHOLD SURVEYS

Survey Design

The primary objective of the subsistence household survey is to estimate the total number of salmon harvested for subsistence and personal use by each community. The survey was based on stratified random sample design (Cochran 1977). In this design, the household within a community was the primary sampling unit; households were stratified into 5 groups based on the level of harvest and the level of survey coverage was designated for each group.

1. *Unknown:* Unknown harvest level. Survey coverage 100%.
2. *Do Not Fish:* Households that do not harvest salmon. Survey coverage 30%
3. *Light Harvester:* 1-100 total salmon harvest. Survey coverage 30%
4. *Medium Harvester:* 101-500 total salmon harvest. Survey coverage 100%
5. *Heavy Harvester*. >500 total salmon harvest. Survey coverage 100%.

Sampling of the Light Harvester and Do Not Fish groups was increased to 50% in Emmonak, Holy Cross, Pilot Station, and Tanana to improve the precision of harvest estimates in these larger communities. When any stratum contained 5 or fewer households, the sample size was made equal to the stratum size (i.e. 100% coverage). In communities with less than 40 households, all households were selected to be surveyed (100% coverage). The harvest level of

each household was determined based on the most recent 2-year harvest average from the previous 5 years. Total salmon harvest included Chinook, summer chum, fall chum, and coho salmon, and did not include pink or sockeye salmon. When 2 recent years of harvest data were unavailable, such as from new households, or households that have not participated in the survey, the household's harvest group designation was not updated.

A harvesting household was defined as a household that participated in subsistence fishing activities, such as harvesting or processing fish. The number of fish harvested by a fishing household was defined as the number of fish harvested or processed by the household for subsistence purposes. During the interview, a fishing household was identified by the question (survey question 3, Figure 3): "Did anyone in your household harvest salmon for subsistence use OR keep fish for subsistence use from commercial fishing?" The surveyor was instructed to clarify that "harvest" meant any participation in the subsistence fishery, such as cutting fish. Frequently, several households fish together at a fish camp as a group, not only for themselves, but also for other nonfishing households (e.g., their parents or relatives). Some households harvest salmon, while some only process the catch (i.e., clean, cut, dry, smoke). In these cases, fish brought home by each participating household were considered fish harvested by the household.

Household Updates

A list of the Yukon Area households (*families* database) was updated annually using previous years' survey information. Prior to the community survey, the list was further updated by contacting knowledgeable individuals in each community. Community census lists, telephone and utility lists, and the Alaska Permanent Fund Dividend application list were also used in creating and maintaining the *families* database. Households that lived outside of the survey areas but traveled to the Yukon River to fish in or near a surveyed community were included on the household list in the community nearest their fishing location.

Since 2004, Subsistence Assistants (residents with local knowledge) have been employed by the Yukon River Drainage Fisheries Association (YRDFA) to assist with annually reviewing and updating the household list and community maps as well as acting as a guide within the communities. In a few cases Subsistence Assistants served as translators, but they did not conduct interviews. When assistants were unavailable, surveyors worked with other sources of local information such as tribal administrators or school principals to aid in community navigation. In some communities, more than one assistant was hired to work with each surveyor, or to complete the surveys if the first assistant was unavailable for the whole visit.

Household Survey Questionnaire

To keep data comparable between years, the subsistence survey questions have been generally consistent from year to year (Figure 3). Questions included total number of salmon harvested by the household (questions 5 and 7), whether the household commercial fished and if any of the subsistence salmon were retained from commercial fishing (question 9), number of salmon used (question 11), fishing gear used (question 14), and area fished (question 13).

To determine distribution of salmon within a community, the survey addresses the number of households that fished together (question 6), total number of the group's catch (question 5), the number of salmon given to other families (question 12), the number of salmon received from other

households, from commercial harvest, or from a test fishery project (question 16), and the number of salmon harvested for dog food (questions 18, 19, and 20).

Households were asked to assess at what level their subsistence salmon needs were met for each species (question 21); responses were grouped into 4 categories: 0 to 25%, 26 to 50%, 51 to 75%, and greater than 75% of needs met. Households that caught no fish of a given salmon species were marked as having 0% of their needs met for that species, unless they indicated they had "No need" for that species. For example, the respondent indicated they did not need to harvest the species because the summer chum salmon run was sufficient, so the household did not fish for fall chum salmon. Other reasons for "No need" of a species could include that the species was not traditionally fished in a particular area due to species distribution, personal preference, or that some individuals in a household were allergic to the species. Comments (question 22) were recorded by surveyors relating to factors such as lack of fishing equipment or bad weather that affected a household's ability to meet their needs. If a household lost part of their subsistence catch (question 10), the surveyor asked about the reason for loss and verified that the lost fish were included in the harvest estimates.

Households were also asked about their harvest of miscellaneous fish species (question 15) and pink and sockeye salmon. For species that are commonly harvested in the winter and spring, households were asked about their harvest of that species throughout the previous winter, from the date of the previous year's survey to the current year's survey. Miscellaneous species include large whitefish over 4 pounds and small whitefish species less than 4 pounds *(Coregonus* spp. *and Prosopium cylindraceum)*, sheefish *(Stenodus leucichthys)*, burbot *(Lota lota)*, northern pike *(Esox lucius)*, Alaska blackfish *(Dallia pectoralis)*, Arctic grayling *(Thymallus arcticus)*, longnose sucker *(Catostomus catostomus)*, Arctic char *(Salvelinus alpinus)*, Arctic lamprey *(Lampetra camtschatica)* and saffron cod *(Eleginus gracilis)*. For species that are commonly harvested in the winter and spring, households were asked about their harvest of that species throughout the previous winter, from the date of the previous year's survey to the current year's survey.

An additional component was added to the 2006 survey in District 1 communities and the coastal community of Scammon Bay to better understand the size and types of nets being used to target Chinook salmon. This component was initiated in response to concerns by fishermen along the Yukon River about decreased size of these fish (JTC 2006). The gear survey (Figure 4) was an attempt to gather information on fishing gear (nets) being used for Chinook salmon harvest during commercial and subsistence openings. All the households in the medium and heavy harvest groups in Alakanuk, Emmonak, Kotlik, Nunam Iqua, and Scammon Bay were asked about primary fishing locations in a broad scale including Black River, coastal (south, middle or north mouths) or in District 1 proper. They were asked if they participated in the commercial and/or subsistence fishery. They were also asked what quantity of Chinook salmon gear and which type (drift or set gillnets) they used for both commercial and subsistence fishing. The gear survey also asked about net lengths (in fathoms), mesh size (in inches), and net depth (in number of mesh deep).

Household Survey

Before conducting the survey, surveyors were trained in interviewing techniques, including learning the local names of salmon species and various ways to obtain the number of fish harvested. The surveyors were also briefed on current fishery issues and management actions related to the subsistence and commercial salmon fishing season. Surveyors were trained to ask questions

consistently and foster a cooperative atmosphere so that interviewed household members were able to recall as accurately as possible their household harvest and use, and share any fishery related knowledge and concerns pertinent to the survey outcome.

Household surveys were conducted in September and October when the majority of salmon fishing activities had ended and fishermen could more easily recall their harvest numbers. In 2006, a total of 1,370 households were selected to be surveyed in 33 communities. A total of 31 Subsistence Assistants were hired in 28 of the surveyed communities. Surveyors attempted to contact all selected households, and noted households that were unavailable during the community visit to follow-up with later by phone or letter. After the interview was completed, survey participants were given a small token of appreciation (12 inch ruler) for participating in the survey.

After the household surveys were conducted, survey forms were edited for clarity and completion. Households were called back when further clarification was needed or to reconcile conflicting information among households that harvested or shared salmon with each other. When fishermen reported amounts in alternative terms, such as the number of 5 gallon buckets, quart sized bags, gunny sacks, or pounds, a conversion sheet based on local approximate measures was used to estimate number of fish harvested. Calculations were made when the surveys were edited prior to database entry.

HARVEST ESTIMATION METHODS

Classical stratified random sampling methods (Cochran 1977) were used to estimate the average and total number of fish caught by each of the 5 harvest groups (strata) in each surveyed Yukon Area community.

Denote that:

N_{kj} = the number of households in the jth ($j = 1 \ldots 5$) group of the kth community

n_{kj} = the number of sampled households in the jth group of the kth community

y_{kji} = response of ith sample household ($i = 1 \ldots n_{kj}$) in the jth group of the kth community

Mean response (harvest) of the jth group of the kth community ($\bar{y}_{kj}$) was calculated as:

$$\bar{y}_{kj} = \frac{\sum_{i=1} y_{kji}}{n_{kj}} ; \tag{1}$$

and its standard error (SE_{kj}) was calculated as:

$$SE_{kj} = \sqrt{\frac{s_{kj}^2}{n_{kj}}\left(\frac{N_{kj} - n_{kj}}{N_{kj}}\right)} \; ; \; s_{kj}^2 = \frac{\sum_{i=1}\left(y_{kji} - \bar{y}_{kj}\right)^2}{n_{kj} - 1} . \tag{2}$$

The estimate of total responses (harvests) of the kth community ($\hat{T}_k$) was calculated as:

$$\hat{T}_k = \sum_{j=1}^{5} N_{kj}\bar{y}_{kj} ; \tag{3}$$

and its 95% confidence interval (95%CI$_k$) was calculated as:

$$95\%\mathrm{CI}_k = 1.96 \cdot \sqrt{\hat{V}(T_k)} \;;\; \hat{V}(T_k) = \sum_{j=1}^{5} N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{s_{kj}^2}{n_{kj}} \right). \quad (4)$$

Because the estimates of the responses (harvests) in each community were independent from each other, the estimate of survey wide total ($\hat{T}$) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k \quad (5)$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\%\mathrm{CI} = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} \;;\; \hat{V}(T) = \sum_{k=1} \hat{V}(\hat{T}_k) \quad (6)$$

The estimation methods described above were used to estimate: the number of people in a community (question 2: Figure 3), the number of subsistence salmon harvested (question 7), the number of salmon used (question 11), the number of salmon given to the household (question 16), the number of dogs (question 17), the number of salmon retained for dog food (question 20). These methods were also used to estimate and the number of non-salmon fish harvested, including whitefish, northern pike, and sheefish (question 15).

Reported harvests of other miscellaneous fish species were not expanded because of limited harvest information. Harvest groups stratified for salmon are not adequate to estimate species captured with different harvest methods and at different times of year. Those fish species include Arctic grayling, Arctic char, Alaska blackfish, burbot, Arctic lamprey, longnose sucker, saffron cod. Unlike harvest of the targeted salmon species, the sockeye salmon harvest was also not expanded to estimate the harvest of households that were not surveyed. Sockeye salmon are caught infrequently in the lower and middle Yukon River drainage, but they are included on the survey because some fishermen have consistently reported incidental catches of sockeye salmon. The number of sockeye salmon harvested was typically too low to support stratified estimates, therefore only limited information about the harvest and utilization of sockeye salmon was obtained.

For estimation of the number of; subsistence fishing households (question 3), households that own dogs, and households that feed salmon to dogs (questions 17, 18), the following expansion method was used:

Denote that:

N_{kj} = the number of households in *j*th ($j = 1 \ldots 5$) harvest group of the *k*th community

n_{kj} = the number of sample households in the *j*th harvest group of the *k*th community

y_{kji} = response (y_{kji} = 1 if subsistence fish or own dogs or feed salmon to dogs, 0 if not) of ith sample household (i=1 … n_{kj}) in the jth harvest group of the kth community

Proportion of households subsistence fish or own dogs of feed salmon to dogs in the jth harvest group of the kth community ($\hat{p}_{kj}$) was calculated as:

$$\hat{p}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} . \tag{7}$$

Estimated number of households that subsistence fish or own dogs or feed salmon to dogs in the kth community ($\hat{T}_k$) was calculated as:

$$\hat{T}_k = \sum_{j=1}^{5} N_{kj} \hat{p}_{kj} ; \tag{8}$$

and its 95% confidence interval (95%CI$_k$) was calculated as:

$$95\%\mathrm{CI}_k = 1.96 \cdot \sqrt{\hat{V}(\hat{T}_k)} \ ; \ \hat{V}(\hat{T}_k) = \sum_{j=1}^{5} N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{\hat{p}_{kj}(1-\hat{p}_{kj})}{n_{kj} - 1} \right). \tag{9}$$

Estimated number of households that subsistence fish or own dogs or feed salmon to dogs in the survey wide total ($\hat{T}$) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k ; \tag{10}$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\%\mathrm{CI} = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} \ ; \ \hat{V}(\hat{T}) = \sum_{k=1} \hat{V}(\hat{T}_k) . \tag{11}$$

The number of fish harvested at each fishing area by community (question 13) was estimated as follows:

Denote that:

$\hat{N}_k$ = Estimated number salmon harvested at the kth community

y_{kjih} = the number of salmon harvested at the hth fishing area by the ith sample household (i = 1 … n_{kj}) in the jth group of the kth community

Proportion of salmon harvested at hth fishing area in the kth community ($\hat{p}_{kh}$) was estimated as:

$$\hat{p}_{kh} = \frac{\sum_{i,j} y_{kjih}}{\sum_{i,j,h} y_{kjih}}. \tag{12}$$

The number of salmon harvested at the hth fishing area at the kth community ($\hat{N}_{k,h}$) was calculated as:

$$\hat{N}_{k,h} = \hat{N}_k \hat{p}_{kh}. \tag{13}$$

Total number of salmon harvested at the hth fishing area ($\hat{N}_h$) was estimated as:

$$\hat{N}_h = \sum_k \hat{N}_h. \tag{14}$$

RESULTS

OVERALL ESTIMATION OF HARVEST

An estimated 48,682 Chinook, 115,340 summer chum, 84,335 fall chum, and 19,985 coho salmon were harvested for subsistence by 1,614 households in the Yukon Area (Table 1). The total number of salmon harvested includes estimated postseason surveys results, reported harvest from returned permits (subsistence and personal use), salmon reported as distributed to communities from test fish projects and salmon reported on fish tickets in District 6 as retained from commercial fisheries. Reported harvests from Steven's Village permits are not included in the total harvest. Salmon retained from commercial fishing in surveyed communities are included in subsistence survey harvest estimates for each community. The number of fishing households does not include households that were issued non-salmon permits for pike in the Tolovana River.

The total number of salmon caught in subsistence fisheries was 267,279 salmon; consisting of 48,593 Chinook, 115,078 summer chum, 84,002 fall chum, and 19,706 coho salmon (Figure 5, Appendices B1–B4). This does not include harvests from personal use salmon permits which were issued in the Fairbanks Nonsubsistence Area (Figure 2). On average (1992–2005) Chinook salmon compromise 21% of the total subsistence harvest, summer chum 40%, fall chum 29%, and coho salmon 10% (Figure 5).

Test fish projects provided 2,153 Chinook, 3,605 summer chum, 3,011 fall chum, and 967 coho salmon to households for subsistence use, which includes salmon given to the communities of Eagle and Nenana (Table 1, Appendix A11). The primary gear types used for subsistence and personal use salmon fishing throughout the Yukon Area were 434 households using set gillnets (49%), 376 households using drift gillnets (42%), and 73 households using fish wheels (8%; Table 1). A small number of households (7 households, less than 1%) reported using other gear types (angling and dip nets). An estimated 226 households reported feeding subsistence caught salmon to their dogs (Tables 2 and 3). Surveyed and permit households throughout the Yukon Area retained an estimated 75,648 salmon for dog food from subsistence harvests (Tables 3, 4 and 5; Appendix B10).

SUBSISTENCE SURVEYS

Surveyors traveled to 33 Yukon area communities between September 6 and October 25, 2006. An additional trip was made to Hooper Bay in November, 2006 (Table 1) due to a large fire in the community earlier in the season. Five unselected households from 5 communities were surveyed, either as new households, unselected households that requested to be surveyed, or that were misidentified as selected. The number of additional surveys was small and not statistically significant in regards to the stratified household selection; therefore their responses were entered along with the selected households responses. Surveys for 1,057 household were collected in person, via telephone, or from surveys and calendars returned by mail, about 77% of households initially selected for the survey (Table 6). Of the 2,398 total households identified in the survey area, an estimated 1,378 households (57%) participated in the subsistence fishery (Table 7). The estimated total population in surveyed communities was 8,931 people (Table 8).

An estimated 39,199 Chinook, 107,866 summer chum, 41,212 fall chum, and 8,456 coho salmon were harvested in the surveyed communities (Table 9). Fishermen from some communities may fish in multiple districts, subdistricts, or tributaries and may harvest different salmon stocks. Stocks are mixed until they segregate by the left and right bank orientation (e.g. Subdistricts 4-B, 4-C, 5-A and 5-B) or peel off into tributaries, or move into areas that predominantly have only one salmon species present at a time (e.g. Subdistrict 5-D). Districts with the largest catches of subsistence salmon, including salmon retained from commercial harvest, were District 4, harvesting 12,022 Chinook salmon; District 2, harvesting 30,242 summer chum salmon; District 5, harvesting 29,130 fall chum salmon; and District 5, harvesting 3,678 coho salmon (Tables 10–13). Salmon retained for subsistence from commercial harvests included an estimated 256 Chinook, 1,732 summer chum, 380 fall chum, and 43 coho salmon. These fish are included within the estimated harvest totals for each surveyed community (Table 1).

Households reported receiving an estimated 2,829 Chinook, 6,084 summer chum, 1,090 fall chum, and 217 coho salmon from subsistence fishermen (Appendix A9). Households also reported being provided 15 Chinook, 289 summer chum, 63 fall chum, and 266 coho salmon from commercial fishermen (Appendix A10). In 2006, 7 survey communities received a total of 9,115 salmon from test fish projects (Appendix A11, Appendix B8). Of the salmon harvested and/or given to households, an estimated 34,129 Chinook, 95,839 summer chum, 38,607 fall chum, and 7,863 coho salmon were used for subsistence (Table 14). This includes salmon used by fishing and nonfishing households in the surveyed communities, but the estimate may not include fish distributed to households outside the survey area.

The combined total estimated harvest of other subsistence fish including pink salmon, whitefish, northern pike, and sheefish in the Yukon Area was 106,655 fish (Table 15). Of the estimated harvest of 4,854 pink salmon, approximately 58% were harvested in the Coastal District communities of Scammon Bay and Hooper Bay. The pink salmon harvest was 29% below the even-year average for 1996–2004 and 19% above the 10 year average (even and odd years) for 1996–2005 (Appendix B9). The reported harvest of other miscellaneous fish species, not expanded, in surveyed communities totaled 241,436 fish (Table 16). Alaska blackfish represented 91% of the reported harvest of miscellaneous fish species by number and were primarily taken in the Lower Yukon Area (Tables 16, Appendix B11). Alaska blackfish are frequently reported by households in terms of pounds, sacks or buckets and are estimated to be 14 fish per pound. The reported harvest of sockeye salmon was 333 fish (Table 16).

An estimated 1,536 households in surveyed communities in the Yukon Area owned an estimated 4,262 dogs200 (Table 2). Of the households with dogs, 121 (8%) fed whole fish to dogs (Table 2, Appendix B10). Surveyed households indicated dogs were fed an estimated 17,949 summer chum, 25,444 fall chum, and 3,694 coho salmon from subsistence harvests (Table 4). Dogs were fed an additional estimated 338 summer chum and 95 fall chum salmon from commercial harvests (Table 5).

A total of 1,777 salmon (about 0.7% of the total salmon harvest) were reported as lost in the surveyed communities (Appendix A12). Lost salmon consisted of 192 Chinook, 1,354 summer chum, 81 fall chum, 29 coho, and 121 pink salmon. An additional 380 salmon were unsuitable for human consumption but were fed to dogs consisting of 28 Chinook, 322 summer chum, and 30 fall chum salmon Lost salmon are included in household harvest estimates, but are not included in a household's use (question 11: Figure 3), unless they were fed to dogs.

Of the households contacted during the survey, 856 households replied to the 'needs met' question for Chinook salmon (Figure 3, question 21). Of these households, 47% met less than 50% of their Chinook salmon needs, and 41% met between 75% and 100% of their needs for Chinook salmon. Of the 686 households providing information on summer chum salmon, 36% of household met less than 50% of their needs and 52% were able to meet between 75% and 100% of their needs for summer chum salmon. The number of responses for fall fish was fewer than for summer species. Only 408 and 181 households answered the question for fall chum and coho salmon. The percentage of households meeting 50% or less of their subsistence needs was 54% for fall chum salmon and 60% for coho salmon, with 38% and 35% of households meeting between 75% and 100% of their needs for both fall species (Table 17).

Of the 2,398 households in the surveyed communities, households with unknown harvest levels (246 households, 10%) and households that do not harvest salmon (839 households, 35%) made up 45% of households in surveyed communities. Some of these households did harvest salmon in 2006. Over half (55%, 1,313 households) were categorized as fishing households. The largest group of known fishing households was Light harvesters (963 households, 73% of fishing households). Medium harvester (311 households, 24%) and Heavy harvester (39 households, 3%) households comprised the other 28% of fishing households. The group with the largest proportion of the Chinook salmon harvest was the "light harvesters," who took an estimated 43% (16,852 Chinook salmon) of the total Chinook salmon subsistence harvest. "Light harvesters" also harvested the largest percentage of summer chum salmon with approximately 39% of the total summer chum salmon subsistence harvest (Appendix A2). Heavy harvesters harvested over 62% of the fall chum salmon subsistence harvest (Appendix A3) and approximately 47% of the

coho salmon subsistence harvest (Appendix A4), but only about 9% of the Chinook salmon subsistence harvest (Appendix A1).

The additional gear survey for Chinook salmon harvest received responses from 66 of the 84 contacted households in 5 communities. Residents of households in the communities of Alakanuk (15), Emmonak (15), Kotlik (14), Nunam Iqua (11), and Scammon Bay (11) provided information on gear usage. Drift gillnet mesh sizes ranged from 5.5 to 8.75 inches stretch mesh (8 to 8.75 for commercial, 5.5 to 8.75 for subsistence), lengths ranged from 5 to 150 fathoms (8 to 150 for commercial, 5 to 50 for subsistence), and net depths ranged from 20 to 45 number of meshes (30 to 45 for commercial gear, 20 to 45 for subsistence gear). Results also showed variation in type of nets used between communities, although some respondents used both. Drift gillnets were used by 93% of Alakanuk respondents, 100% of Emmonak respondents, 64% of Kotlik respondents, 100% of Nunam Iqua respondents, and 0% of Scammon Bay respondents.

Set gillnet mesh sizes ranged from 6 to 8.75 inches stretch mesh (7.75 to 8.75 for commercial, 6 to 8.5 for subsistence), lengths ranged from 5 to 50 fathoms (30 to 50 for commercial, 5 to 50 for subsistence), and net depths ranged from 25 to 55 number of mesh (25 to 40 commercial, 25 to 55 for subsistence). Set gillnets were used by 13% of Alakanuk respondents, 7% of Emmonak respondents, 43% of Kotlik respondents, 17% of Nunam Iqua respondents, and 100% of Scammon Bay respondents.

CALENDARS

In 2006, households returned a total of 317 subsistence harvest calendars (approximately 20% of the 1,570 issued). A total of 287 calendars (90%) reported fishing activity. The remaining households that returned harvest calendars either indicated they "did not fish" this season (9%) or the calendars were returned blank (1%). Reported harvest on calendars was 15,426 Chinook, 34,488 summer chum, 23,453 fall chum, 3,579 coho, and 1,790 pink salmon (Figure 6). The timing and distribution of fishing effort by district and by day is shown based on returned calendars (Figure 7 top panel).

SUBSISTENCE PERMITS

Total subsistence salmon harvests from permit areas in the Yukon and Tanana Rivers (Figure 1) were 7,586 Chinook, 3,754 summer chum, 39,979 fall chum, and 10,672 coho salmon. These totals include salmon harvested by permit holders in Stevens Village, test fish given to the permit communities of Eagle and Nenana, and salmon retained from commercial fishing in District 6 (Tables 1, 18 and 19; Appendix A11). The 2006 permit harvest information was based on permits returned by May 1, 2007. Of the 399 permits issued, 387 (97%) permits were returned and 262 households reported participating in salmon and nonsalmon subsistence fisheries (Tables 3, 18 and 19).

Salmon harvests reported on subsistence permits were 7,263 Chinook, 3,754 summer chum, 39,805 fall chum, and 10,283 coho salmon (Tables 18 and 19). The timing and distribution of fishing effort by district and by day is shown based on harvest recorded on permits (Figure 7 bottom panel). Primary gear types from the 199 households that fished for subsistence salmon included 155 (78%) set gillnets, 41 (21%) fish wheels and 3 (1%) other gear types (Table 1). This does not include permits issued in Stevens Village (3), on the Koyukuk River (1) and Kantishna Rivers (3). An additional 56 households used jigging gear in the Tolovana River pike fishery.

Fish tickets records indicated that 265 Chinook salmon were retained from commercial fishing in District 6; these salmon were added to the community harvest from Nenana (Table 1). Additionally, salmon from test fish projects were distributed to the communities of Eagle and Nenana (Table 1, Appendix A11). Based on subsistence salmon permits (not including Tolovana pike permits which do not require the reporting of dog information), 105 households indicated they fed salmon to dogs. These households reported retaining 28,128 whole salmon for dog food (Table 3, Appendix B10). The total harvest of other fish species included: 3,112 whitefish, 75 sheefish, 123 burbot, 1,006 northern pike, 586 longnose suckers, and 506 Arctic grayling (Tables 18 and 19).

PERSONAL USE

In 2006, 67 (100%) of the personal use permits issued were returned (Table 18). Of these, 39 permits reported fishing, 35 were issued for the Tanana River personal use salmon fishery and 4 were issued for whitefish and suckers in the Tanana River (Table 18). Personal use permit holders reported harvesting 89 Chinook, 262 summer chum, 333 fall chum, 279 coho salmon; and 287 whitefish, 5 sheefish, 4 burbot, 2 northern pike, 184 longnose suckers, and 1 Arctic grayling (Tables 18 and 19). Of the 35 households that fished salmon for personal use, primary gear types included 34 set gillnets (97%), 1 fish wheel (3%) (Table 1).

DISCUSSION

SALMON RUNS AND MANAGEMENT

Salmon returns to the Yukon River in 2006 were marked by large summer and fall chum salmon runs. Chinook salmon escapements were within or above escapement goals in most tributaries. The summer chum salmon run entry was 2 days early and came in at record strength. The Pilot Station sonar passage estimate of 3.8 million summer chum salmon was more than twice as high as the 1997–2005 average of 1.1 million fish (Bue et al. 2011). The total run size estimate of 4.0 million summer chum salmon was near record levels (K. Howard, Commercial Fisheries Biologist, ADF&G, Anchorage, personal communication). The Pilot Station sonar passage estimate of 115,624 pink salmon was above the previous even year average (1998–2004) of 102,629 pink salmon (JTC 2007). Summer and fall chum salmon runs often exhibit a strong relationship with each other (JTC 2007). The end of the season run reconstruction for fall chum salmon estimated a drainagewide return of an approximately 1.1 million fish, and the drainagewide escapement estimate of 870,000 fall chum salmon was the second largest since 1995, but less than half of the record 2.0 million in 2005. The cumulative passage estimate by the Pilot Station sonar project of coho salmon was approximately 132,000 fish through August 31, which was below the 1995–2005 average of 147,000 coho salmon (JTC 2007).

In 2006, the Yukon River breakup in Alakanuk was on May 28, 6 days later than average timing (1983–2005) and 8 days later than the recent 10 year average (1996–2005)[2]. Water levels in the lower river in the early part of the season were characterized as being higher than normal. The first subsistence catch of Chinook salmon was reported from Mountain Village on June 4, and

[2] Alaska Pacific River Forecast Center: Breakup database search results for Yukon River location Alakanuk. [Internet]. 1956– . Anchorage: NOAA Alaska Region Headquarters. [updated 2012 May 25; cited 2010 Mar 15]. Available from: http://aprfc.arh.noaa.gov/php/brkup/brkupall.php?searcharea=Yukon&searchtermriv=Yukon&searchtermloc=Alakanuk

the first test fish catch in the Lower Yukon Test Fishery was on June 6 in Emmonak (JTC 2007). The regulatory "windowed" subsistence schedule was implemented on May 29 in the lower river, then implemented chronologically upriver based on migratory timing as the summer runs traveled upstream. The window fishing schedule consists of weekly fishing openings and closures that are scheduled for each district at the start of the fishing season, and are subject to change depending on run strength. Subsistence fishing was opened for 7-days per week on July 6 in District 4 due to high water and debris affecting subsistence fishermen. Subsistence fishing openings were also relaxed during the fall season due to good returns of fall chum salmon. Fishing schedule announcements were relayed to each community's tribal and/or city office via fax or email, broadcast on local radio stations, and presented during weekly YRDFA teleconferences.

The windows schedule of fishing openings was implemented by the BOF in 2001 as a response to poor runs and was intended as a conservation measure. The schedule was intended to provide sufficient opportunity for fishermen in each district to catch normal subsistence harvests, but also to distribute the harvest throughout the run and reduce harvest early in the run when there is a much higher level of uncertainty in projecting the total run abundance (ADF&G 2001). The window schedule also reduces the impact on any particular component of the run and spreads subsistence harvest opportunities among subsistence users throughout the drainage.

COMMERCIAL AND SUBSISTENCE FISHING

In addition to salmon harvested during subsistence openings, commercial fishing households can retain salmon caught during commercial openings for subsistence purposes. During the survey, households were asked if they commercially fished, and if their subsistence harvest numbers included any salmon retained from commercial fishing periods. Income from commercial fishing is often used by households to help pay for the costs associated with subsistence harvesting activities, including fuel and fishing equipment.

During the summer season, commercial fishing periods occurred in Districts/Subdistricts 1, 2, 3, 5-B, 5-C, 6-A, 6-B, and 6-C. The commercial harvest of 45,829 Chinook salmon was the sixth lowest since statehood and 14% below the 1996–2005 average. Most commercial summer chum salmon harvest in 2006 was incidental to fishing directed at Chinook salmon, due to the lack of a summer chum salmon market. Summer chum salmon was not sold for roe in 2006, and the commercial harvest of 92,116 summer chum salmon was the tenth lowest commercial harvest since statehood and 22% below the 1996–2005 average (Bue et al. 2011).

Commercial openings during the fall season occurred in Districts/Subdistricts 1, 2, 4, 6-B, and 6-C. The commercial harvest of 175,000 fall chum salmon was the second highest since 1995 (JTC 2007) and was 360% higher than the 1996–2005 average of 37,908 fish. The commercial harvest of 64,942 coho salmon was the highest since 1991, and was 230% above the 1996–2005 average of 19,669 fish (Bue et al. 2011).

Salmon retained from commercial periods were included in the household harvest estimates in surveyed communities. In permit communities, salmon reported on fish tickets as 'retained but not sold' were added to community harvests as commercial related salmon (Table 1).

SALMON HARVESTS AND AMOUNTS NECESSARY FOR SUBSISTENCE

Several inseason and postseason methods were used for evaluating salmon runs and whether fishermen met their subsistence needs. Managers maintained inseason communication with fishermen to obtain information on fishing success in communities and as a means of assessing fishery openings and closures. Since 1992, YRDFA has facilitated weekly inseason teleconferences to provide fishermen in the entire Yukon River drainage (including Canada) an opportunity to discuss the ongoing runs with fisheries managers. Since 2003, the U.S. Fish and Wildlife Service conducted weekly inseason surveys during the Chinook salmon run in selected communities to help managers understand how the subsistence season was unfolding. The information was used to assess harvest goals, fishing conditions, and quality of subsistence catch through interviews of a subsample of fishermen each week to evaluate progress towards meeting subsistence needs (Gerken 2008). The results of these interviews were often summarized during the weekly teleconferences.

One method for assessing the relative success of Yukon Area fishermen is to compare the annual drainagewide estimated subsistence harvest to the "amounts (reasonably) necessary for subsistence" (ANS) harvest ranges established by the Alaska Board of Fisheries (BOF) (ADF&G 2001). The ANS levels outlined in regulation 5 AAC 01.236 are 45,500–66,704 Chinook, 83,500–142,192 summer chum, 89,500–167,900 fall chum, and 20,500–51,980 coho salmon (Figures 8–11). No ANS levels were established for pink or sockeye salmon. The annual harvest amounts used for comparison to ANS ranges include salmon harvests from permits, survey estimates, test fish and retained from commercial fisheries. Salmon harvested in the personal use fishery are not included. Coastal communities were included in determining Yukon Area ANS ranges as these communities harvest most of their salmon from Yukon River drainage salmon stocks. These levels may require periodic adjustments since the ANS cannot account for trends over time, such as changes in fishing patterns due to population shifts or changes in the fisheries. The estimated subsistence harvest of Chinook and summer chum salmon in 2006 were within their respective ANS range, however fall chum and coho salmon were slightly lower than the range (Figures 8–11).

Subsistence harvest averages from 2001–2005 and 1996–2000 (Figures 8–11) show more recent trends in the fisheries whereas the ANS levels are based on historic harvest levels between 1990 and 1999. Averages for years 2001–2005 and 1996–2000 for Chinook salmon have remained within the ANS levels, however those same 5-year averages for fall chum salmon were well below the lower ANS level and reflect the weakness of fall chum salmon stocks and the management actions that were taken to protect escapement. Chinook salmon subsistence harvest in 2006 was 9% below the recent 5-year average (2001–2005) average and 1.5% below the previous 5-year average for 1996–2000 (Appendix B1; Figure 8). The 2006 summer chum salmon subsistence harvest was 39% above the recent 5-year average (2001–2005) and 18% above the previous 5-year average (1996–2000) (Appendix B2; Figure 9). The 2006 subsistence harvest of fall chum salmon was 58% above the recent 5-year average and 6% above the previous 5-year average (Appendix B3; Figure 10). While the coho salmon subsistence fishing schedules were liberalized in 2006, coho salmon subsistence harvest was 10% below the recent 5-year and 9% below the previous 5-year average (Appendix B4; Figure 11).

While comparisons of the annual drainagewide harvest with ANS and historic averages provides insight into the run strength and relative success of all fishermen, the survey results are unique in

breaking down percent needs met by species and community (Table 17). Ideally a strong run would be reflected in a strong subsistence harvest of that species. However, it has been observed that approximately 20–30% of households report they were not able to get enough salmon even in years with very good escapement (Borba and Hamner 2001). In 2006, the summer chum salmon run was near record abundance, and Chinook, fall chum and coho salmon runs were large enough to warrant relaxed subsistence schedules and increased fishing opportunity. The percentage of households that reported meeting over 50% of their needs in 2006 was below the average of needs met in recent years (2003–2005) for each species (Appendix B13).

An estimated 53% of surveyed households reported they met at least half of their subsistence needs for Chinook salmon, however individual communities ranged from 7% (Allakaket) to 83% (Kaltag) of households meeting at least 50% of their subsistence needs for Chinook salmon (Table 17). More than half of the households (64%) met over half of their subsistence needs for summer chum salmon, and 46% and 40% of households reported meeting over half of their subsistence needs for fall chum and coho salmon (Table 17). Community success rates do not account for where individual households fished. In a tributary community, fishermen may travel to the mainstem Yukon River to fish, yet their success data are not differentiated from households who fish on the tributary.

Harvest of salmon can be highly variable due to factors unrelated to run strength. Factors mentioned by households as contributing to subsistence needs not being met in 2006 included gasoline prices, loss of gear, bad drying weather, water conditions (e.g. water levels, debris), lack of time, work schedules, and equipment failure. Fuel prices were mentioned by many households as a hardship in 2006. For those Yukon Area communities not located on the road system, gasoline prices significantly increased from the already elevated 2005 prices. Retail sale prices for gasoline in Emmonak increased from $4.11 a gallon during the 2005 fishing season to a cost of $4.89 per gallon in 2006, prompting some fishermen to wait for increased fish abundance or reduce the number of fishing excursions to decrease fuel costs. Compared to 2005 fuel prices, communities paid between 9% less per gallon in Anvik to 36% more per gallon in Galena (DCA 2007a-b).

In addition to factors affecting a household's success in harvesting salmon, many households do not fish for salmon. Common reasons for not fishing included work schedules, lack of gear or equipment (e.g. no boat or motor), and poor health. Non-fishing households may receive fish throughout the year from friends and relatives, often receiving salmon after it has been processed. At the time of the survey, it may be hard for these households to assess whether their needs were met because they have not yet received their fish for the winter. It may also be difficult to quantify the number of fish a household usually receives, as it is often transferred as strips, jars, meals or fillets, not as whole fish.

NONSALMON SPECIES

Harvest of nonsalmon fish species was most likely underestimated by this project. The stratification and harvest estimation system is based on a household's historical "salmon" harvests and may not adequately represent households that fish predominantly for other species. The correlation between the level of salmon harvest and the level of nonsalmon harvest has not been determined. In order to improve the harvest estimates of nonsalmon species, additional strata and sampling designs would need to be identified and developed (Borba and Hamner 1998). Additionally, the survey is timed to occur at the end of salmon fishing season, whereas

nonsalmon species are often harvested throughout the fall and during the winter under the ice (Brown et al. 2005). During the annual survey, households are asked to estimate their harvest of nonsalmon species from the previous twelve months (Figure 3, question 15). The reported harvests in surveyed communities for most nonsalmon species were not expanded. However, catch totals were expanded for whitefish, sheefish, and northern pike which are often harvested concurrently with salmon.

Increased fishing effort during recent years has raised concern regarding the winter pike subsistence fishery in the lower Chatanika River. This is a through-the-ice fishery open from January 1 to break-up of the Chatanika River, usually in April. Two management plans guide Yukon Area managers on actions to take at different harvest thresholds, the Minto Flats Northern Pike (Sport Fishery) Management Plan (5 AAC 70.044) and the Minto Flats Northern Pike (Subsistence Fishery) Management Plan (5 AAC 01.244). The sport fishery plan states that when 750 pike have been harvested in the winter through-the-ice subsistence fishery, the sport fish bag limit will be reduced at the beginning of the pike sport fishery on June 1. The subsistence fishery plan states that when 1,500 pike are projected to be harvested in the winter through-the-ice fishery, the fishery would close by emergency order. In 2006, the Sport Fish winter threshold of 750 pike was attained resulting in management actions taken by the Division of Sport Fish to implement harvest reduction for the remainder of the year. The subsistence pike fishery harvested 788 fish (101 household permits issued, 56 fished; Table 18). Subsistence pike harvest was still well below the upper harvest threshold, however, managers observed a resurgence of the subsistence pike fishery, and an increase in number of permits issued and fishing effort in recent years. The potential impact of increased effort on the pike fishery is unclear and may need to be addressed in the following years.

DOGS

In 2006, there was a 5% decrease in the number of dogs in the Yukon Area compared to the 2001–2005 average (Appendix B10). However, the estimated amount of all salmon species (summer chum, fall chum, and coho salmon) fed whole to dogs from surveyed communities and permit areas was 24% higher than the 2001–2005 average (Appendix B10). In a study conducted in 1991, salmon retained for dog food was found to constitute between 22% and 98% of all fish species fed to sled dogs among the 6 Yukon River communities of Fort Yukon, Huslia, Kaltag, Russian Mission, St. Mary's and Tanana (Anderson and Scott 2010). Nonsalmon species, commercial feeds and supplements are also fed to sled dogs. Fluctuation in the amount of salmon fed to dogs is likely due to dog owners increasing the amounts of salmon fed to dogs in years of good salmon harvests. The largest number of salmon estimated fed to dogs in the previous 10 years (1996–2005) was 270,862 salmon in 1996 (Appendix B10), and corresponded with the largest total salmon harvest for the same time period (Figure 5). The least number of salmon fed to dogs was 20,984 salmon (Appendix B10) from 2000, which corresponded to the lowest total subsistence salmon harvest (Figure 5).

CALENDARS

Calendars were distributed to communities in the Alaska Yukon Area to assist in documenting harvest throughout the salmon season and aid households in recalling their harvest. Like the in-person surveys, calendars provide information on harvest numbers, including proportions by species (Figure 6). Calendars also provide information on fishing effort throughout the season (Figure 7 top panel). Calendar return rates, however, are generally low and only 18% of the

calendars in 2006 were returned with harvest information. While the calendars and surveys are meant to work in tandem (i.e., calendars keep a daily record of catch that can be reported to surveyors at the end of the season), it is worth noting that a large percentage of returned calendars are from non-selected (not surveyed) households, providing a degree of independence between the survey data and calendar data.

Recording harvest on calendars is voluntary and the harvest information provided in 2006 was representative of the expanded Alaska Yukon Area harvest estimated from subsistence surveys. Both survey estimates and returned calendars reported Chinook salmon comprising approximately 20%, summer chum salmon approximately 45%, fall chum salmon approximately 30%, and coho salmon between 4% and 8% of the total harvest (Figures 5 and 6). Many households use the calendars more consistently for recording their harvest of Chinook salmon than of other species. Permits areas with mandatory harvest reporting requirements are located in the Upper Yukon Area where the majority of fall salmon are harvested (Appendices B3 – B4); during the fall season a much larger amount of effort is recorded on permits than calendars (Figure 7).

SUPPLEMENTAL GEAR SURVEY

In addition to the annual survey, medium and heavy harvesters in Alakanuk, Emmonak, Kotlik, Nunam Iqua, and Scammon Bay were also asked to discuss the types of gear that they used for subsistence and commercial harvest of Chinook salmon in 2006. Concerns had been voiced by fishermen throughout the drainage about the decrease in the size of Chinook salmon (JTC 2006), and there was some concern of the potential of net selectivity preferentially targeting larger and older individuals (Hankin and Healey 1986; Hard et al. 2008). Limited empirical data supported the assertions that the size of Chinook salmon were decreasing, however the reasons were unknown (Hyer and Schluesner 2005; JTC 2006; Bigler et al. 1996). This survey was intended to gather information for the Alaska Board of Fisheries on the mesh sizes used by subsistence fishermen in this area as background for a larger study to be performed in later years.

While the supplemental survey did provide some interesting data on gear used for the commercial and subsistence harvest of Chinook salmon, it was found to be difficult to administer in the fall during the postseason subsistence surveys. There were concerns that the addition of extra questions to an already long survey would make the process too unwieldy, however the larger problem that occurred was that the survey interviews were often conducted with the household member who cut fish and knew the answers to the regular survey questions, but did not know the specifics about net sizes used (A. Marsh, Division of Commercial Fisheries, Fisheries Technician, ADF&G, Fairbanks, personal communication). Between hunting and late season commercial fishing opportunities, many of the primary fishermen were not available to answer specific gear questions.

SURVEY COMMENTS

Survey interviews provided households an opportunity to comment to ADF&G on any topic related to fishing they felt was important. Some comments were made regarding the poor quality (disease/small size) of salmon (12), issues with fishing equipment (9), and concerns about whitefish health and abundance (7). There were also several issues that appeared to be more regional. Upper river residents (14) requested drift gillnet fishing, while lower river residents were concerned with the ADF&G test fish site locations and wanted more local input (13).

Fishermen also commented on bycatch in the Bering Sea Pollack fishery as a cause for poor Chinook salmon returns (7). However, many fishermen were satisfied with management and like receiving test fish (39). Fishermen were also asked about fish loss and fish quality; most salmon were lost due to poor conditions during processing or storage, such as rain, bad weather, insects, or lost to theft by scavengers (Appendix A12). The largest loss in 2006 was due to a devastating fire in the community of Hooper Bay that resulted in the loss of more than 800 salmon. Fortunately, Hooper Bay residents that lost salmon in the fire were provided fish from the Kuskokwim River (primarily coho salmon) by the Coastal Villages Regional Fund (Appendix A10).

The most numerous comments (69) from the survey were regarding fishing schedules, primarily concerning either restrictions, or closures when salmon were running by their fishing area. Many respondents felt that 7 day/week openings would be better. Fishermen commented that they only catch what they need for subsistence and then stop fishing, and that restrictions of subsistence fishing were unnecessary. For some fishermen, the windows schedule prevented them from catching all their fish at once, and affected their usual processing and storage of fish. Restricted fishing times also reduced the ability of fishermen to adapt to circumstances such as poor weather, water levels, debris, and work schedules. Short openings stretched out the season, an important consideration when gasoline costs and work schedules limited the number of possible trips to a fish camp. Fishermen also expressed concern that it was difficult to know when fishing was open, and that greater communication of schedules and management might help.

The 2006 Yukon Area total salmon harvest estimated from subsistence surveys was 196,733 Chinook, summer chum, fall chum and coho salmon combined (Appendix A1–A4). The estimated number of salmon used for subsistence by surveyed households was 158,592 (Table 14), which was 20,295 less than the number of salmon harvested, but within the range of the confidence intervals for both estimates. Salmon used for subsistence includes the number of salmon retained by fishing households for their own use, and the number of salmon given to households by other fishermen or test fisheries. The difference between the harvest and use amounts are likely due to the difficulty in estimating quantities of fish that have been processed and transferred between households. Non-fishing households may use more fish throughout the winter than was reported to the surveyors in the fall, and may end up consuming salmon as fillets, jars, meals, or at potlatches and gatherings which are difficult to quantify. Salmon used for subsistence may also be given to family members in unsurveyed households outside of the survey area. The survey methodology is stratified to estimate the number of salmon harvested, and may underestimate the number of salmon "used" by households particularly in the 'Do Not Fish' or 'Unknown' use groups.

Overall, the 2006 combined subsistence harvest of salmon species (Chinook, summer chum, fall chum, and coho salmon) was the largest since 1997 (Figure 5). However, while summer and fall chum salmon harvests were greater than the recent 5-year (2001–2005) and previous 5-year (1996–2000) average, harvests of Chinook and coho salmon were lower than the recent 5-year (2001–2005) and previous 5-year (1996–2000) averages (Appendices B1–B4). Subsistence harvests of Chinook salmon have remained fairly stable near 50,000 fish, but have fallen below ANS levels twice in the previous 10 years (2000 and 2002; Figure 8). Returns from the extremely poor run of Chinook salmon from 2000 continued to necessitate conservative management strategies, and commercial harvests of Chinook salmon decreased 60% over the same 10-year period (Bue et al. 2011). Summer chum salmon runs improved steadily since 2001,

and the returns from the 2001 parent year contributed to the near record run of summer chum salmon in 2006 (Bue et al. 2011). Fall chum salmon run strength was poor from 1998 to 2002, but steadily improved from 2003 through 2006 (Bue et al. 2011). Strong summer and fall chum salmon runs alleviated the need for extra subsistence closures in both the summer and fall seasons, and allowed for increased opportunity for fishermen to harvest salmon.

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REFERENCES CITED

ADF&G (Alaska Department of Fish and Game). 2001. 2001 Yukon Area subsistence, personal use, and commercial salmon fisheries outlook and management strategies. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A01-16, Anchorage.

ADF&G (Alaska Department of Fish and Game). 2002. Annual management report Yukon Area, 2000. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A02-29, Anchorage.

Andersen, D. B., and C. L. Scott. 2010. An update on the use of subsistence-caught fish to feed sled dogs in the Yukon River drainage, Alaska. Final report to the U.S. Fish and Wildlife Service for Fisheries Resource Monitoring Project 08-250, Anchorage.

Bigler, B. S., D. W. Welch, and J. H. Helle. 1996. A review of size trends among North Pacific salmon (*Oncorhynchus* spp). Canadian Journal of Fisheries and Aquatic Sciences 53:455-465.

Borba, B. M., and H. H. Hamner. 1998. Subsistence and personal use salmon harvest estimates, Yukon Area, 1997. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Informational Report 3A98-23, Anchorage.

Borba, B. M., and H. H. Hamner. 2001. Subsistence and personal use salmon harvests Yukon Area, 2000. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A01-27, Anchorage.

Brown, C. L., D. Caylor, J. Dizard, J. A. Fall, S. Georgette, T. Krauthoefer, and M. Turek. 2005. Alaska subsistence salmon fisheries 2003 annual report. Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 316, Anchorage. www.adfg.alaska.gov/techpap/tp316.pdf

Bue, F., S. J. Hayes, E. Newland, D. F. Evenson, K. Clark, B. M. Borba, W. H. Busher, M. Horne-Brine. 2011. Annual management report for the Yukon and Northern areas, 2006. Alaska Department of Fish and Game, Fishery Management Report No. 11-29, Anchorage. http://www.adfg.alaska.gov/FedAidpdfs/FMR11-29

Cochran, W. G. 1977. Sampling techniques, third edition. John Wily and Sons, New York.

DCA (Division of Community Advocacy) Report to the Commissioner. 2007a. Current community conditions: Fuel prices across Alaska, Fall-Winter 2006 update. [Internet]. Research and Analysis Section, Division of Community Advocacy, Department of Commerce, Community, and Economic Development; Juneau, AK; [cited 2011 March]. Available from: www.commerce.state.ak.us/dca/researchanalysis/pub/FuelReportWinter2006Update.pdf (Accessed July 2012)

DCA (Division of Community Advocacy) Report to the Commissioner. 2007b. Current community conditions: Fuel prices across Alaska, June 2007 update. [Internet]. Research and Analysis Section, Division of Community Advocacy, Department of Commerce, Community, and Economic Development; Juneau, AK; [cited 2011 March]. Available from: www.commerce.state.ak.us/dca/researchanalysis/pub/FuelReportJune2007Update.pdf (Accessed July 2012).

Gerken, J. D. 2008. Yukon River inseason salmon harvest interviews, 2006. U.S. Fish and Wildlife Service, Alaska Fisheries Data Series Number 2008-8, Fairbanks, AK. http://alaska.fws.gov/asm/pdf/fisheries/reports/05-2542006.pdf (Accessed March 2011).

Hankin, D. G., and M. C. Healy. 1986. Dependence of exploitation rates for maximum sustained yield and stock collapse on age and sex structure of Chinook salmon (*Oncorhynchus tshawytscha*) stocks. Canadian Journal of Fisheries and Aquatic Sciences 43:1746-1759.

Hard, J. J., M. R. Gross, M. Heino, R. Hilborn, R. G. Kope, R. Law, and J. D. Reynolds. 2008. Evolutionary consequences of fishing and their implications for salmon. Evolutionary Applications 1:388-408.

Holder, R. R. and H. H. Hamner. 1990. Preliminary estimates of subsistence salmon harvest in the Yukon River drainage, 1989. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3F90-22, Anchorage. http://www.adfg.alaska.gov/FedAidPDFs/RIR.3F.1990.22.pdf (Accessed January 2010).

REFERENCES CITED (Continued)

Holder, R. R., and H. H. Hamner. 1991. Preliminary estimates of subsistence salmon harvest in the Yukon River drainage, 1990. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3F91-20, Anchorage.
www.adfg.alaska.gov/FedAidPDFs/RIR.3F.1991.20.pdf (Accessed January 2010).

Hyer, K. E., and C. J. Schluesner. 2005. Chinook salmon age, sex, and length analysis from selected escapement projects on the Yukon River. Alaska Fisheries Technical Report Number 87. U.S. Fish and Wildlife Service, Anchorage.
http://alaska.fws.gov/fisheries/fish/Technical_Reports/t_2005_87.pdf (Accessed April 2011).

JTC (Joint Technical Committee of the Yukon River US/Canada Panel). 2006. Yukon River salmon 2005 season summary and 2006 season outlook. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A06-03, Anchorage.

JTC (Joint Technical Committee of the Yukon River US/Canada Panel). 2007. Yukon River salmon 2006 season summary and 2007 season outlook. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A07-01, Anchorage.

Kerkvliet, C. M. 1986. 1986 Hooper Bay salmon tagging study. Bering Sea Fishermen's Association, Anchorage, Alaska.

Pennoyer, S., K. R. Middleton, R. I. Regnart, A. M. Miller. 1962. 1961 Annual report Arctic-Yukon-Kuskokwim area. Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage.

Walker, R. J., E. F. Andrews, D. B. Andersen, and N. Shishido. 1989. Subsistence harvest of Pacific salmon in the Yukon River drainage, Alaska, 1977–1988. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A89-21, Anchorage.

Whitmore, C., D. J. Bergstrom, B. S. Buklis, M. Merritt, F. M. Anderson, and L. H. Barton. 1988. Annual management report 1987 Yukon area. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A88-30, Anchorage.

TABLES AND FIGURES

Table 1.– Subsistence and personal use salmon harvest estimates which include commercially related and test fish harvests provided for subsistence use, and related information, Yukon Area, 2006.

Community	Survey Date, Permit Area [a]	Number of Fishing Households [b]	Number of Dogs [c]	Estimated Harvest				Primary Gear Used [d]		
				Chinook	Summer Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Hooper Bay	11/15-18	150	272	376	19,468	146	175	42	4	0
Scammon Bay	9/12-14	48	125	507	4,703	41	160	22	0	0
Coastal District Total		198	397	883	24,171	187	335	64	4	0
Nunam Iqua [e]	9/11-12	23	43	371	2,903	735	392	18	3	0
Alakanuk [f]	9/9-10	83	148	690	7,790	624	101	9	27	0
Emmonak [f]	9/6-9	104	171	2,311	11,899	2,056	450	7	53	0
Kotlik [f]	9/9-11	68	95	1,750	5,289	487	234	16	19	0
District 1 Subtotal		278	457	5,122	27,881	3,902	1,177	50	102	0
Mountain Village [f]	9/17-18	109	221	1,659	13,119	2,398	1,856	6	44	0
Pitkas Point	9/16	13	46	274	680	5	16	1	11	0
St. Mary's	9/13-16,19	80	112	2,233	7,394	417	171	2	42	0
Pilot Station [f]	9/19-22	60	63	1,976	6,070	785	225	2	29	0
Marshall [f]	9/23-25	66	170	1,897	4,392	410	191	4	21	0
District 2 Subtotal		328	612	8,039	31,655	4,015	2,459	15	147	0
Russian Mission	9/25	46	153	1,851	1,328	251	19	3	11	0
Holy Cross	9/20	44	66	3,165	825	224	16	9	15	0
Shageluk	9/21	17	69	358	1,381	5	48	6	9	0
District 3 Subtotal		107	288	5,374	3,534	480	83	18	35	0
Lower Yukon River Total		713	1,357	18,535	63,070	8,397	3,719	83	284	0
Anvik	9/22	16	66	958	387	118	0	10	5	0
Grayling	9/23	43	82	1,702	644	691	224	1	12	0
Kaltag [f]	9/30-10/2	51	67	2,833	159	823	106	0	16	0
Nulato	10/3-4	70	223	2,707	838	751	214	3	23	0
Koyukuk	10/5-6	17	70	835	394	1,147	330	1	12	0
Galena	10/6-10/9	77	154	2,380	1,205	1,632	137	7	19	1
Ruby	10/5-6	13	124	304	1,714	227	11	6	0	2
District 4 Yukon River Subtotal		287	786	11,719	5,341	5,389	1,022	28	87	3
Huslia	10/10	17	200	258	1,122	313	105	7	0	0
Hughes	10/11	7	68	8	3,254	240	150	6	0	0
Allakaket	10/10-12	14	132	23	5,170	393	25	8	0	0
Alatna	10/10-12	3	9	14	110	0	0	2	0	0
Bettles	10/13-14	0	56	0	0	0	0	0	0	0
Koyukuk River Subtotal		41	465	303	9,656	946	280	23	0	0
District 4 Subtotal		328	1,251	12,022	14,997	6,335	1,302	51	87	3

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Table 1.–Page 2 of 3.

Community	Survey Date or Permit Area [a]	Number of Fishing Households [b]	Number Of Dogs [c]	Estimated Harvest				Primary Gear Used [d]		
				Chinook	Summer Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Tanana	10/16-18	49	674	3,794	5,474	23,167	3,619	12	1	14
Rampart	permits	5	50	429	135	250	0	4	0	1
Fairbanks NSB [g]	permits	63	175	2,184	1,341	5,269	79	61	0	2
Stevens Village [h]	10/18 [h]	15	55	1,245	972	50	0	8	0	1
Birch Creek	10/24-25	3	10	174	30	0	0	1	0	0
Beaver	10/18-20	14	26	830	117	0	0	10	0	2
Fort Yukon	10/21-23	39	336	3,144	2,165	5,178	35	8	0	11
Circle	permits	11	63	694	58	664	22	5	0	6
Central	permits	5	7	130	2	0	0	4	0	1
Eagle f	permits	33	263	2,303	974	16,801	0	25	0	7
Other District 5 [i]	permits	8	38	330	87	44	0	8	0	0
District 5 Yukon River Subtotal		245	1,697	15,257	11,355	51,423	3,755	146	1	45
Venetie	10/20-21	16	128	667	475	520	24	6	0	0
Chalkyitsik	10/23-24	3	28	0	0	215	0	2	0	0
Chandalar and Black Rivers Subtotal		19	156	667	475	735	24	8	0	0
District 5 Subtotal		264	1,853	15,924	11,830	52,158	3,779	154	1	45
Manley	permits	12	185	361	89	3,374	1,671	10	0	2
Minto	permits	5	102	31	460	242	14	1	0	3
Nenana [f]	permits	21	256	717	388	10,530	7,032	8	0	15
Healy	permits	4	131	0	0	1,408	1,109	3	0	0
Fairbanks NSB [j]	permits	50	268	209	335	1,644	1,024	45	0	4
Other District 6 [k]	permits	19	85	0	0	60	0	15	0	1
District 6 Tanana River Subtotal		111	1,027	1,318	1,272	17,258	10,850	82	0	25
Upper Yukon River Total		703	4,131	29,264	28,099	75,751	15,931	287	88	73
Survey Community Subtotal		1,378	4,262	39,199	107,866	41,212	8,456	245	376	31
Subsistence Permit Subtotal [l]		202	1,623	6,976	3,607	39,779	10,283	155	0	41
Subsistence Test Fish Subtotal [m]		-	-	2,153	3,605	3,011	967	-	-	-
District 6 Commercial Related [n]				265	0	0	0	-	-	-
Subsistence Harvests Subtotal		1,580	5,885	48,593	115,078	84,002	19,706	400	376	72
Personal Use Permit Subtotals		35	-	89	262	333	279	34	0	1
Alaska, Yukon River Total [o]		1,416	5,488	47,799	91,169	84,148	19,650	370	372	73
Alaska, Yukon Area Total		1,614	5,885	48,682	115,340	84 ,335	19,985	434	376	73
AK, Yukon Area Percentages of the Total		-	-	18%	43%	31%	7%	49%	42%	8%

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[a] Data collected by Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries. Survey data are expanded for number of fishing households, number of dogs, and harvest. Permit data are unexpanded, and are from all permits received as of May 1, 2007.

[b] Estimated number of households that fished in surveyed communities or number of permit households who reported fishing in permit required areas.

[c] The number of dogs is based on survey information or from permits issued and includes sled dogs and other dogs.

[d] Primary fishing gear used is based on survey information or from subsistence permits issued. Totals for gear and household may not be equal due to a small number of fishermen using unknown or 'Other' gear types. Primary gear information for surveyed communities was not expanded for households that were not surveyed.

[e] Formerly known as Sheldon or Sheldon's Point.

[f] Test fish have been added to the total fish harvested in surveyed and permit required communities.

[g] Fairbanks North Star Borough (FNSB) households that obtained a permit and indicated they fished in a Yukon River permit required area.

[h] Permit harvest information from Stevens Village residents was used to complement information obtained by the survey.

[i] "Other District 5" includes residents of Anderson, Healy, Manley, Minto, and the Upper Tanana River drainage communities of Northway and Tok who obtained a household permit and fished in a Yukon River permit required area.

[j] Fairbanks North Star Borough (FNSB) households that obtained a subsistence and/or personal use permit and indicated they fished in a Tanana River permit required area.

[k] "Other District 6" includes residents of the Upper Tanana River drainage communities of Delta Junction, Northway, Tanacross, and Tok, and the communities of Anchorage and Barrow who obtained a permit and fished in the Tanana River.

[l] Subsistence permit subtotal does not include Stevens Village permit information, 56 pike permits, 4 personal use (PU) whitefish permits, and 1 permit issued in the South Fork Koyukuk River.

[m] Test fish given away for subsistence use. Includes 20 Chinook salmon and 15 fall chum salmon given to the permit community of Eagle.

[n] District 6 "Commercial Related" salmon taken but not sold during commercial fishing and retained for subsistence use.

[o] Does not include Coastal District.

Table 2.–Estimated number of households with dogs, households that feed fish to dogs, numbers of dogs, and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

			Number of Households with Dogs		Number of Households that Feed Fish to Dogs		Number of Dogs	
Community	Total Households	Households Contacted	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%
Hooper Bay	196	58	129	22	4	6	272	68
Scammon Bay	78	29	68	7	0	0	125	42
Coastal District	274	87	197	23	4	6	397	80
Nunam Iqua	34	30	18	2	0	0	43	6
Alakanuk	123	46	84	16	7	6	148	35
Emmonak	163	85	103	13	11	6	171	27
Kotlik	98	47	67	13	0	0	95	23
District 1	418	208	272	24	18	8	457	51
Mountain Village	150	57	115	19	10	8	221	55
Pitkas Point	27	18	12	4	1	1	46	26
St. Mary's	124	56	63	17	1	1	112	26
Pilot Station	108	46	51	12	4	5	63	15
Marshall	75	27	53	15	5	3	170	61
District 2	484	204	294	32	21	10	612	91
Russian Mission	58	17	51	7	1	0	153	49
Holy Cross	65	31	34	10	1	0	66	16
Shageluk	32	25	24	3	0	0	69	9
District 3	155	73	109	12	2	0	288	53
Anvik	37	32	26	3	3	0	66	6
Grayling	49	12	31	12	2	3	82	41
Kaltag	62	19	38	12	0	0	67	27
Nulato	89	32	76	10	10	8	223	112
Koyukuk	38	24	18	6	2	0	70	8
Galena	155	45	99	20	4	5	154	39
Ruby	53	17	29	15	3	2	124	59
Huslia	66	21	46	11	4	0	200	145
Hughes	29	22	12	2	3	0	68	4
Allakaket	44	17	38	8	3	0	132	19
Alatna	13	8	7	3	0	0	9	5
Bettles	27	11	6	5	0	0	56	70
District 4	662	260	426	35	34	10	1,251	215
Tanana	104	45	50	13	23	8	674	163
Stevens Village	25	14	17	4	2	3	55	18
Birch Creek	8	4	3	2	0	0	10	7
Beaver	28	23	15	3	0	0	26	5
Fort Yukon	152	44	96	20	12	4	336	130
Venetie	56	12	45	12	4	0	128	65
Chalkyitsik	32	23	12	4	1	0	28	7
District 5	405	165	238	28	42	9	1,257	219
Survey Totals	2,398	997	1,536	66	121	20	4,262	338

Note: The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 3.–Household and dog information reported by subsistence and personal use permits issued and returned, listed by fishery and by community of residence, Yukon Area, 2006.

	Permit Information [a]				Reported Household Information (based on permits issued)					
	Permits [b]		Percent	Numbers of Permits Returned	Number of	Number of	Number of Households	Number of	Number of Households Feeding Whole	Number of Whole Salmon
Subsistence Permits	Issued	Returned	Returned	that Fished [c]	People	Fishermen	with Dogs	Dogs	Salmon to Dogs	Fed to Dogs
Central	8	8	100%	5	19	10	5	7	1	0
Circle	21	18	86%	11	61	30	19	63	11	651
Eagle	42	42	100%	33	110	73	34	263	19	12,113
Rampart	8	8	100%	5	25	17	4	50	3	170
Fairbanks (FNSB) [d]	192	186	97%	130	637	427	62	443	23	2,444
Healy	8	8	100%	5	23	13	5	131	5	1,507
Manley	14	14	100%	13	30	31	10	185	8	2,830
Minto	37	37	100%	12	107	69	15	102	9	0
Nenana	30	29	97%	21	122	76	25	256	20	8,394
Stevens Village [e]	3	3	100%	3	9	5	2	4	0	0
Upper Tanana Villages (UTV) [f]	28	27	96%	21	77	51	18	59	5	19
Other Subsistence [g]	8	7	88%	3	24	13	5	64	1	0
Subsistence Permit Subtotal	399	387	97%	262	1,244	815	204	1,627	105	28,128
Personal Use Permits										
Fairbanks (FNSB) [d]	61	61	100%	33	163	97	-	-	-	-
Other Personal Use [h]	6	6	100%	6	20	8				
Personal Use Subtotal	67	67	100%	39	183	105	-	-	-	-
Permit Totals	466	454	97%	301	1,427	920	204	1,627	105	28,128

[a] Permits returned as of May 1, 2007.

[b] Includes 32 households that were "issued" permits for more than one area, and one household that was issued duplicate permits for the same area. Also includes pike permits, which do not record dog information.

[c] Includes 10 households that "fished" in 2 different areas.

[d] Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

[e] Does not include survey estimates, only information from permits issued to fishermen in Stevens Village.

[f] Upper Tanana River communities include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

[g] Includes residents from Anderson, Barrow, Denali Park, Eagle River, Gakona, Lake Minchumina, and Wiseman who were issued a subsistence fishing permit for the Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk Rivers.

[h] Includes residents of Anchorage, Delta Junction, and Nenana that applied for a personal use permit.

Table 4.–Estimated number of salmon retained for dog food from subsistence harvests with corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

			Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon [a]
Community	Total Households	Households Contacted [b]	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	58	0	0	37	62	63	105	100
Scammon Bay	78	29	0	0	0	0	0	0	0
Coastal District	274	87	0	0	37	62	63	105	100
Nunam Iqua	34	30	0	0	0	0	0	0	0
Alakanuk	123	47	174	87	114	77	0	0	288
Emmonak	163	90	88	70	33	20	0	0	121
Kotlik	98	49	0	0	0	0	0	0	0
District 1	418	216	262	112	147	80	0	0	409
Mountain Village	150	59	69	115	115	116	258	45	442
Pitkas Point	27	21	0	0	0	0	0	0	0
St. Mary's	124	57	22	14	0	0	0	0	22
Pilot Station	108	45	40	28	0	0	0	0	40
Marshall	75	27	62	69	240	0	60	0	362
District 2	484	209	193	138	355	116	318	45	866
Russian Mission	58	18	0	0	0	0	0	0	0
Holy Cross	65	32	0	0	0	0	0	0	0
Shageluk	32	25	0	0	0	0	0	0	0
District 3	155	75	0	0	0	0	0	0	0
Anvik	37	32	225	0	7	5	0	0	232
Grayling	49	12	100	139	300	416	0	0	400
Kaltag	62	19	0	0	0	0	0	0	0
Nulato	89	32	516	389	30	24	77	61	623
Koyukuk	38	24	288	0	600	0	0	0	888
Galena	155	46	0	0	211	345	0	0	211
Ruby	53	16	785	0	0	0	0	0	785
Huslia	66	21	928	0	0	0	0	0	928
Hughes	29	22	2,630	0	150	0	0	0	2,780
Allakaket	44	17	4,413	0	0	0	0	0	4,413
Alatna	13	8	0	0	0	0	0	0	0
Bettles	27	11	0	0	0	0	0	0	0
District 4	662	260	9,885	413	1,298	541	77	61	11,260
Tanana	104	47	4,805	3,942	22,572	5,399	3,236	1,602	30,613
Stevens Village	25	14	692	959	0	0	0	0	692
Birch Creek	8	4	0	0	0	0	0	0	0
Beaver	28	23	0	0	0	0	0	0	0
Fort Yukon	152	45	1,712	743	905	745	0	0	2,617
Venetie	56	13	400	0	30	0	0	0	430
Chalkyitsik	32	23	0	0	100	0	0	0	100
District 5	405	169	7,609	4,124	23,607	5,450	3,236	1,602	34,452
Survey Totals	2,398	1,016	17,949	4,149	25,444	5,479	3,694	1,608	47,087

[a] Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

[b] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 5.–Estimated number of salmon retained for dog food from commercial harvests with corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

Community	Total Households	Households Contacted [b]	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon [a] Estimated Total
Hooper Bay	196	58	0	0	0	0	0	0	0
Scammon Bay	78	29	0	0	0	0	0	0	0
Coastal District	274	87	0	0	0	0	0	0	0
Nunam Iqua	34	30	0	0	0	0	0	0	0
Alakanuk	123	47	0	0	0	0	0	0	0
Emmonak	163	90	8	10	0	0	0	0	8
Kotlik	98	49	0	0	0	0	0	0	0
District 1	418	216	8	10	0	0	0	0	8
Mountain Village	150	59	0	0	0	0	0	0	0
Pitkas Point	27	21	0	0	0	0	0	0	0
St. Mary's	124	57	0	0	0	0	0	0	0
Pilot Station	108	46	0	0	0	0	0	0	0
Marshall	75	27	180	0	0	0	0	0	180
District 2	484	210	180	0	0	0	0	0	180
Russian Mission	58	18	95	0	95	0	0	0	190
Holy Cross	65	33	0	0	0	0	0	0	0
Shageluk	32	25	0	0	0	0	0	0	0
District 3	155	76	95	0	95	0	0	0	190
Anvik	37	32	0	0	0	0	0	0	0
Grayling	49	13	0	0	0	0	0	0	0
Kaltag	62	20	0	0	0	0	0	0	0
Nulato	89	32	0	0	0	0	0	0	0
Koyukuk	38	24	0	0	0	0	0	0	0
Galena	155	47	0	0	0	0	0	0	0
Ruby	53	17	0	0	0	0	0	0	0
Huslia	66	21	0	0	0	0	0	0	0
Hughes	29	22	0	0	0	0	0	0	0
Allakaket	44	17	0	0	0	0	0	0	0
Alatna	13	8	0	0	0	0	0	0	0
Bettles	27	11	0	0	0	0	0	0	0
District 4	662	264	0	0	0	0	0	0	0
Tanana	104	47	55	33	0	0	0	0	55
Stevens Village	25	14	0	0	0	0	0	0	0
Birch Creek	8	4	0	0	0	0	0	0	0
Beaver	28	23	0	0	0	0	0	0	0
Fort Yukon	152	45	0	0	0	0	0	0	0
Venetie	56	13	0	0	0	0	0	0	0
Chalkyitsik	32	23	0	0	0	0	0	0	0
District 5	405	169	55	33	0	0	0	0	55
Survey Totals	2,398	1,022	338	34	95	0	0	0	433

[a] Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

[b] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 6.–Estimated total number of households, sample size, number contacted, and percentage of sampled households that were contacted in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals			
Community	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Hooper Bay	3	3	2	67%	73	22	18	82%	111	34	31	91%	9	9	8	89%	-	-	-	-	196	68	59	87%
Scammon Bay	2	2	-	-	23	7	5	71%	40	12	12	100%	13	13	13	100%	-	-	-	-	78	34	30	88%
Coastal District	5	5	2	40%	96	29	23	79%	151	46	43	93%	22	22	21	95%	-	-	-	-	274	102	89	87%
Nunam Iqua	4	4	3	75%	5	5	5	100%	10	10	9	90%	15	15	14	93%	-	-	-	-	34	34	31	91%
Alakanuk	4	4	1	25%	33	10	7	70%	61	19	17	89%	25	25	22	88%	-	-	-	-	123	58	47	81%
Emmonak	18	18	11	61%	53	27	23	85%	61	31	28	90%	31	31	28	90%	-	-	-	-	163	107	90	84%
Kotlik	17	17	14	82%	25	8	8	100%	36	11	9	82%	20	20	18	90%	-	-	-	-	98	56	49	88%
District 1	43	43	29	67%	116	50	43	86%	168	71	63	89%	91	91	82	90%	-	-	-	-	418	255	217	85%
Mountain Village	20	20	9	45%	30	9	6	67%	66	20	19	95%	33	33	30	91%	1	1	1	100%	150	83	65	78%
Pitkas Point	4	4	1	25%	4	4	4	100%	12	12	11	92%	7	7	6	86%	-	-	-	-	27	27	22	81%
St. Mary's	25	25	15	60%	16	5	3	60%	54	17	15	88%	29	29	28	97%	-	-	-	-	124	76	61	80%
Pilot Station	13	13	4	31%	36	18	14	78%	43	22	18	82%	16	16	15	94%	-	-	-	-	108	69	51	74%
Marshall	7	7	3	43%	21	7	5	71%	33	10	6	60%	13	13	13	100%	1	1	1	100%	75	38	28	74%
District 2	69	69	32	46%	107	43	32	74%	208	81	69	85%	98	98	92	94%	2	2	2	100%	484	293	227	77%
Russian Mission	-	-	-	-	14	5	4	80%	39	12	11	92%	4	4	4	100%	1	1	1	100%	58	22	20	91%
Holy Cross	13	13	5	38%	15	8	6	75%	24	12	9	75%	13	13	13	100%	-	-	-	-	65	46	33	72%
Shageluk	3	3	1	33%	7	7	4	57%	11	11	11	100%	10	10	9	90%	1	1	1	100%	32	32	26	81%
District 3	16	16	6	38%	36	20	14	70%	74	35	31	89%	27	27	26	96%	2	2	2	100%	155	100	79	79%
Anvik	3	3	2	67%	12	12	8	67%	14	14	14	100%	7	7	7	100%	1	1	1	100%	37	37	32	86%
Grayling	1	1	-	-	4	2	1	50%	35	11	8	73%	8	8	5	63%	1	1	-	-	49	23	14	61%
Kaltag	13	13	4	31%	9	3	4	133%	38	12	11	92%	2	2	2	100%	-	-	-	-	62	30	21	70%
Nulato	7	7	4	57%	27	9	9	100%	49	15	14	93%	6	6	5	83%	-	-	-	-	89	37	32	86%
Koyukuk	9	9	3	33%	12	12	8	67%	14	14	10	71%	2	2	2	100%	1	1	1	100%	38	38	24	63%
Galena	19	19	11	58%	72	22	15	68%	56	17	17	100%	6	5	4	80%	2	2	2	100%	155	65	49	75%
Ruby	3	3	2	67%	34	11	6	55%	10	3	3	100%	3	3	3	100%	3	3	3	100%	53	23	17	74%
Huslia	1	1	1	100%	42	13	11	85%	18	6	4	67%	2	2	2	100%	3	3	3	100%	66	25	21	84%
Hughes	3	3	1	33%	18	18	14	78%	5	5	4	80%	2	2	2	100%	1	1	1	100%	29	29	22	76%
Allakaket	5	5	2	40%	24	8	6	75%	8	3	2	67%	5	5	5	100%	2	2	2	100%	44	23	17	74%
Alatna	6	6	3	50%	4	4	4	100%	2	2	1	50%	1	1	-	-	-	-	-	-	13	13	8	62%
Bettles	6	6	1	17%	17	17	8	47%	4	4	2	50%	-	-	-	-	-	-	-	-	27	27	11	41%
District 4	76	76	34	45%	275	131	94	72%	253	106	90	85%	44	43	37	86%	14	14	13	93%	662	370	268	72%

-continued-

Table 6.–Page 2 of 2.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals			
Community	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Tanana	10	10	7	70%	49	25	15	60%	28	14	13	93%	6	6	4	67%	11	11	10	91%	104	66	49	74%
Stevens Village	1	1	-	-	7	7	4	57%	14	14	7	50%	2	2	2	100%	1	1	1	100%	25	25	14	56%
Birch Creek	-	-	-	-	5	5	4	80%	3	3	1	33%	-	-	-	-	-	-	-	-	8	8	5	63%
Beaver	2	2	2	100%	11	11	10	91%	12	12	10	83%	3	3	3	100%	-	-	-	-	28	28	25	89%
Fort Yukon	7	7	4	57%	89	27	20	74%	35	11	8	73%	13	13	10	77%	8	8	6	75%	152	66	48	73%
Venetie	7	7	1	14%	32	10	6	60%	13	4	2	50%	3	3	3	100%	1	1	1	100%	56	25	13	52%
Chalkyitsik	10	10	5	50%	16	16	12	75%	4	4	4	100%	2	2	2	100%	-	-	-	-	32	32	23	72%
District 5	37	37	19	51%	209	101	71	70%	109	62	45	73%	29	29	24	83%	21	21	18	86%	405	250	177	71%
Survey Totals	246	246	122	50%	839	374	277	74%	963	401	341	85%	311	310	282	91%	39	39	35	90%	2,398	1,370	1,057	77%

Note: Total number of households (N), the sample size (n), the number of households contacted (C), and the percent of the sampled households that were contacted (%C) in each harvest group in surveyed communities. Households contacted (C) may include some households not pre-selected resulting in a household contacted percentage (%C) greater than 100%. Dashes indicate indefinable values.

Table 7.– Estimated total number of subsistence fishing households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	Total	95%
Hooper Bay	3	2	1.0	0.0	73	18	0.8	0.1	111	31	0.7	0.1	9	8	0.9	0.0	-	-	-	-	196	59	150	19
Scammon Bay	2	0	-	-	23	5	0.4	0.2	40	12	0.7	0.1	13	13	0.9	0.0	-	-	-	-	78	30	48	14
Coastal District	5	2	1.0	0.0	96	23	0.7	0.1	151	43	0.7	0.1	22	21	0.9	0.0	-	-	-	-	274	89	198	24
Nunam Iqua	4	3	0.3	0.2	5	5	0.0	0.0	10	9	0.7	0.1	15	14	1.0	0.0	-	-	-	-	34	31	23	2
Alakanuk	4	1	1.0	-	33	7	0.6	0.2	61	17	0.6	0.1	25	22	1.0	0.0	-	-	-	-	123	47	83	17
Emmonak	18	11	0.7	0.1	53	23	0.3	0.1	61	28	0.8	0.1	31	28	0.9	0.0	-	-	-	-	163	90	104	10
Kotlik	17	14	0.6	0.1	25	8	0.3	0.1	36	9	0.9	0.1	20	17	1.0	0.0	-	-	-	-	98	48	68	10
District 1	43	29	0.7	0.0	116	43	0.3	0.1	168	63	0.7	0.0	91	81	0.9	0.0	-	-	-	-	418	216	278	22
Mountain Village	20	9	0.6	0.1	30	5	0.4	0.2	66	19	0.8	0.1	33	30	0.9	0.0	1	1	1.0	-	150	64	109	17
Pitkas Point	4	1	0.0	-	4	4	0.3	0.0	12	11	0.6	0.0	7	6	0.7	0.1	-	-	-	-	27	22	13	2
St. Mary's	25	15	0.5	0.1	16	3	0.0	0.0	54	15	0.7	0.1	29	28	1.0	0.0	-	-	-	-	124	61	80	11
Pilot Station	13	4	0.5	0.2	36	14	0.1	0.1	43	18	0.8	0.1	16	15	0.8	0.0	-	-	-	-	108	51	60	10
Marshall	7	3	1.0	0.0	21	5	0.6	0.2	33	6	1.0	0.0	13	13	0.9	0.0	1	1	1.0	-	75	28	66	9
District 2	69	32	0.5	0.1	107	31	0.3	0.1	208	69	0.8	0.0	98	92	0.9	0.0	2	2	1.0	-	484	226	328	24
Russian Mission	-	-	-	-	14	4	0.5	0.2	39	10	0.9	0.1	4	4	0.8	0.0	1	1	1.0	-	58	19	46	9
Holy Cross	13	5	0.4	0.2	15	6	0.5	0.2	24	8	0.8	0.1	13	13	1.0	0.0	-	-	-	-	65	32	44	9
Shageluk	3	1	0.0	-	7	4	0.5	0.2	11	11	0.5	0.0	10	9	0.7	0.1	1	1	1.0	-	32	26	17	3
District 3	16	6	0.3	0.2	36	14	0.5	0.1	74	29	0.8	0.1	27	26	0.8	0.0	2	2	1.0	-	155	77	107	14
Anvik	3	2	0.5	0.3	12	8	0.0	0.0	14	14	0.5	0.0	7	7	0.9	0.0	1	1	1.0	-	37	32	16	2
Grayling	1	0	-	-	4	1	0.0	-	35	8	1.0	0.0	8	5	1.0	0.0	1	0	-	-	49	14	43	0
Kaltag	13	4	0.8	0.2	9	4	0.5	0.2	38	11	0.9	0.1	2	2	1.0	0.0	-	-	-	-	62	21	51	9
Nulato	7	4	1.0	0.0	27	9	0.6	0.1	49	14	0.9	0.1	6	5	1.0	0.0	-	-	-	-	89	32	70	11
Koyukuk	9	3	0.0	0.0	12	8	0.3	0.1	14	10	0.8	0.1	2	2	1.0	0.0	1	1	1.0	-	38	24	17	3
Galena	19	10	0.7	0.1	72	15	0.2	0.1	56	17	0.8	0.1	6	4	0.8	0.1	2	2	1.0	0.0	155	48	77	17
Ruby	3	2	0.5	0.3	34	6	0.0	0.0	10	3	0.7	0.3	3	3	1.0	0.0	3	3	0.7	0.0	53	17	13	6
Huslia	1	1	1.0	-	42	11	0.1	0.1	18	4	0.5	0.3	2	2	0.5	0.0	3	3	0.7	0.0	66	21	17	11
Hughes	3	1	0.0	-	18	14	0.1	0.0	5	4	0.5	0.1	2	2	1.0	0.0	1	1	1.0	-	29	22	7	2
Allakaket	5	2	0.0	0.0	24	6	0.2	0.1	8	2	0.5	0.4	5	5	0.8	0.0	2	2	1.0	0.0	44	17	14	10
Alatna	6	3	0.0	0.0	4	4	0.3	0.0	2	1	1.0	-	1	0	-	-	-	-	-	-	13	8	3	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	33	0.5	0.0	275	94	0.2	0.0	253	90	0.8	0.0	44	37	0.9	0.0	14	13	0.8	0.0	662	267	328	27

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Table 7.–Page 2 of 2.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Combined Est	Combined CI
Community	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	Total	95%
Tanana	10	6	0.3	0.1	49	14	0.1	0.1	28	13	0.8	0.1	6	4	1.0	0.0	11	10	1.0	0.0	104	47	49	10
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	0.9	0.1	2	2	1.0	0.0	1	1	1.0	-	25	14	15	3
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	1.0	-	-	-	-	-	-	-	-	-	8	5	3	0
Beaver	2	2	0.0	0.0	11	10	0.3	0.0	12	10	0.6	0.1	3	3	1.0	0.0	-	-	-	-	28	25	14	2
Fort Yukon	7	4	0.3	0.2	89	19	0.0	0.0	35	8	0.5	0.2	13	10	1.0	0.0	8	6	0.8	0.1	152	47	39	12
Venetie	7	1	1.0	-	32	6	0.2	0.2	13	2	0.0	0.0	3	3	1.0	0.0	1	1	1.0	-	56	13	16	9
Chalkyitsik	10	5	0.0	0.0	16	12	0.1	0.0	4	4	0.5	0.0	2	2	0.0	0.0	-	-	-	-	32	23	3	1
District 5	37	18	0.3	0.0	209	69	0.1	0.0	109	45	0.6	0.1	29	24	0.9	0.0	21	18	0.9	0.0	405	174	139	18
Survey Totals	246	120	0.5	0.0	839	274	0.3	0.0	963	339	0.8	0.0	311	281	0.9	0.0	39	35	0.9	0.0	2,398	1,049	1,378	54

Note: The number of fishing households was estimated from the total number of households (N), the number of households contacted (n), the proportion of households that fished (PF), and the standard error (SE) for each harvest group in each community. Estimated total number of fishing households includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Table 8.–Estimated number of people in households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Combined Est	Combined CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	5.5	1.4	73	18	4.8	0.6	111	30	4.2	0.4	9	8	6.1	0.4	-	-	-	-	196	58	887	118
Scammon Bay	2	0	-	-	23	5	4.6	1.1	40	12	5.1	0.7	13	12	6.7	0.2	-	-	-	-	78	29	396	76
Coastal District	5	2	5.5	1.4	96	23	4.7	0.5	151	42	4.4	0.3	22	20	6.4	0.2	-	-	-	-	274	87	1,283	140
Nunam Iqua	4	2	6.0	0.7	5	5	2.4	0.0	10	7	5.4	0.9	15	13	4.8	0.2	-	-	-	-	34	27	162	19
Alakanuk	4	0	-	-	33	7	4.7	1.4	61	17	4.5	0.4	25	22	4.4	0.2	-	-	-	-	123	46	539	108
Emmonak	18	11	5.1	0.6	53	23	4.0	0.3	61	28	4.6	0.3	31	26	5.0	0.2	-	-	-	-	163	88	737	55
Kotlik	17	14	5.7	0.2	25	8	5.1	0.7	36	9	4.8	0.8	20	17	4.7	0.2	-	-	-	-	98	48	491	69
District 1	43	27	5.5	0.3	116	43	4.4	0.5	168	61	4.6	0.3	91	78	4.7	0.1	-	-	-	-	418	209	1,929	141
Mountain Village	20	6	1.8	0.3	30	5	4.6	0.7	66	18	5.3	0.4	33	27	5.0	0.1	1	1	4.0	-	150	57	694	65
Pitkas Point	4	1	5.0	-	4	4	1.8	0.0	12	9	4.9	0.3	7	6	5.8	0.4	-	-	-	-	27	20	127	9
St. Mary's	25	14	4.4	0.5	16	3	2.7	1.1	54	14	3.1	0.5	29	26	4.3	0.1	-	-	-	-	124	57	447	68
Pilot Station	13	4	4.8	0.8	36	14	4.5	0.6	43	16	5.1	0.5	16	14	4.6	0.2	-	-	-	-	108	48	516	62
Marshall	7	3	3.0	0.9	21	5	5.0	1.1	33	5	6.6	1.7	13	13	5.2	0.0	1	1	4.0	-	75	27	416	121
District 2	69	28	3.6	0.3	107	31	4.2	0.4	208	62	4.9	0.3	98	86	4.8	0.1	2	2	4.0	-	484	209	2,200	166
Russian Mission	-	-	-	-	14	4	4.5	1.1	39	8	4.3	0.5	4	4	6.5	0.0	1	1	5.0	-	58	17	260	49
Holy Cross	13	5	3.0	0.7	15	5	4.0	0.9	24	8	2.5	0.3	13	13	4.2	0.0	-	-	-	-	65	31	214	34
Shageluk	3	1	10.0	-	7	4	2.0	0.7	11	11	3.5	0.0	10	8	3.9	0.2	1	1	5.0	-	32	25	127	10
District 3	16	6	4.3	0.5	36	13	3.8	0.6	74	27	3.6	0.3	27	25	4.4	0.1	2	2	5.0	-	155	73	601	61
Anvik	3	2	2.5	0.3	12	8	2.3	0.3	14	14	2.8	0.0	7	7	3.6	0.0	1	1	5.0	-	37	32	104	6
Grayling	1	0	-	-	4	1	3.0	-	35	7	4.4	0.5	8	4	3.8	0.3	1	0	-	-	49	12	197	35
Kaltag	13	3	2.0	0.0	9	4	2.5	0.5	38	10	3.9	0.2	2	2	4.0	0.0	-	-	-	-	62	19	205	20
Nulato	7	4	4.8	1.6	27	9	3.0	0.4	49	14	3.4	0.3	6	5	3.0	0.2	-	-	-	-	89	32	300	41
Koyukuk	9	3	2.7	0.7	12	8	1.6	0.2	14	10	2.6	0.2	2	2	4.0	0.0	1	1	2.0	-	38	24	90	15
Galena	19	7	2.7	0.4	72	15	1.9	0.3	56	16	3.7	0.4	6	3	2.3	0.2	2	2	4.0	0.0	155	43	414	61
Ruby	3	2	3.5	0.9	34	6	2.3	0.9	10	3	2.3	0.6	3	3	2.0	0.0	3	3	1.7	0.0	53	17	124	61
Huslia	1	1	4.0	-	42	11	4.2	0.5	18	4	3.5	1.4	2	2	2.0	0.0	3	3	4.3	0.0	66	21	260	62
Hughes	3	1	4.0	-	18	14	2.0	0.1	5	4	2.3	0.3	2	2	3.5	0.0	1	1	3.0	-	29	22	69	6
Allakaket	5	2	2.0	0.0	24	6	2.5	0.6	8	2	2.0	0.0	5	5	3.4	0.0	2	2	3.0	0.0	44	17	109	27
Alatna	6	3	4.7	0.2	4	4	1.5	0.0	2	1	3.0	-	1	0	-	-	-	-	-	-	13	8	40	3
Bettles	6	1	1.0	-	17	8	1.6	0.2	4	2	2.0	0.7	-	-	-	-	-	-	-	-	27	11	42	8
District 4	76	29	2.8	0.2	275	94	2.5	0.2	253	87	3.5	0.2	44	35	3.2	0.1	14	13	3.2	0.0	662	258	1,954	126

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Table 8.–Page 2 of 2.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	6	2.0	0.4	49	13	2.6	0.4	28	11	2.3	0.3	6	4	3.3	0.5	11	10	2.8	0.2	104	44	262	41
Stevens Village	1	0	-	-	7	4	1.5	0.3	14	7	1.6	0.3	2	2	4.0	0.0	1	1	3.0	-	25	14	44	9
Birch Creek	-	-	-	-	5	4	1.8	0.1	3	1	2.0	-	-	-	-	-	-	-	-	-	8	5	15	1
Beaver	2	2	1.5	0.0	11	9	2.1	0.3	12	8	2.0	0.2	3	3	1.7	0.0	-	-	-	-	28	22	55	8
Fort Yukon	7	4	3.3	0.7	89	18	2.1	0.2	35	7	2.4	0.5	13	9	2.0	0.2	8	5	3.6	0.5	152	43	350	55
Venetie	7	1	2.0	-	32	6	3.3	0.7	13	2	2.0	0.0	3	3	3.3	0.0	1	1	6.0	-	56	13	163	43
Chalkyitsik	10	5	2.2	0.4	16	12	2.3	0.2	4	4	2.8	0.0	2	2	3.0	0.0	-	-	-	-	32	23	75	11
District 5	37	18	2.3	0.2	209	66	2.4	0.2	109	40	2.2	0.2	29	23	2.6	0.1	21	17	3.3	0.2	405	164	964	82
Survey Totals	246	110	3.5	0.1	839	270	3.3	0.1	963	319	4.0	0.1	311	267	4.4	0.0	39	34	3.4	0.1	2,398	1,000	8,931	305

Note: The total number of people in surveyed communities was estimated from the total number of households (N), the number of households contacted (n), average number of people in households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Table 9.–Subsistence salmon harvest estimates including commercially retained (not including test fish) and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
Community	Total Households	Households Contacted [a]	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	59	376	105	19,468	4,122	146	99	175	109	20,165
Scammon Bay	78	30	507	263	4,703	1,776	41	44	160	39	5,411
Coastal District	274	89	883	283	24,171	4,489	187	109	335	116	25,576
Nunam Iqua	34	31	371	57	2,903	247	735	160	392	127	4,401
Alakanuk	123	47	580	120	7,483	1,898	519	240	76	31	8,658
Emmonak	163	90	1,561	479	10,226	1,725	1,358	423	331	95	13,476
Kotlik	98	49	1,243	239	5,077	1,327	410	168	234	86	6,964
District 1	418	217	3,755	552	25,689	2,898	3,022	539	1,033	183	33,499
Mountain Village	150	65	1,659	333	13,119	2,555	1,777	829	1,652	738	18,207
Pitkas Point	27	22	274	47	680	162	5	3	16	9	975
St. Mary's	124	61	2,233	634	7,394	917	417	65	171	124	10,215
Pilot Station	108	49	1,610	686	4,895	1,629	121	146	32	18	6,658
Marshall	75	28	1,535	429	4,154	1,996	410	20	191	31	6,290
District 2	484	225	7,311	1,081	30,242	3,746	2,730	844	2,062	749	42,345
Russian Mission	58	20	1,851	653	1,328	483	251	204	19	18	3,449
Holy Cross	65	32	3,165	737	825	292	224	210	16	24	4,230
Shageluk	32	26	358	68	1,381	219	5	0	48	16	1,792
District 3	155	78	5,374	978	3,534	605	480	293	83	34	9,471
Anvik	37	32	958	0	387	37	118	0	0	0	1,463
Grayling	49	14	1,702	594	644	443	691	514	224	190	3,261
Kaltag	62	21	2,833	985	159	74	151	172	69	114	3,212
Nulato	89	32	2,707	868	838	435	751	469	214	160	4,510
Koyukuk	38	24	835	233	394	25	1,147	290	330	68	2,706
Galena	155	49	2,380	698	1,205	413	1,632	636	137	101	5,354
Ruby	53	17	304	191	1,714	82	227	92	11	12	2,256
Huslia	66	21	258	350	1,122	0	313	223	105	0	1,798
Hughes	29	22	8	2	3,254	143	240	13	150	0	3,652
Allakaket	44	17	23	0	5,170	709	393	0	25	14	5,611
Alatna	13	8	14	0	110	0	0	0	0	0	124
Bettles	27	11	0	0	0	0	0	0	0	0	0
District 4	662	268	12,022	1,666	14,997	1,046	5,663	1,030	1,265	300	33,947

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Table 9.–Page 2 of 2.

Community	Total Households	Households Contacted [a]	Chinook Salmon Estimated Total	Chinook Salmon CI 95%	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon Estimated Total
Tanana	104	49	3,794	741	5,474	3,120	23,167	4,277	3,619	1,678	36,054
Stevens Village	25	14	1,245	570	972	945	50	0	0	0	2,267
Birch Creek	8	5	174	0	30	0	0	0	0	0	204
Beaver	28	25	830	77	117	10	0	0	0	0	947
Fort Yukon	152	48	3,144	793	2,165	704	5,178	1,840	35	30	10,522
Venetie	56	13	667	971	475	0	520	283	24	28	1,686
Chalkyitsik	32	23	0	0	0	0	215	59	0	0	215
District 5	405	177	9,854	1,565	9,233	3,335	29,130	4,665	3,678	1,678	51,895
Survey Totals	2,398	1,054	39,199	2,784	107,866	7,427	41,212	4,891	8,456	1,875	196,733

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes. Includes the confidence interval (CI 95%).

[a] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 10.–Estimated subsistence harvest including commercially retained (not including test fish) of Chinook salmon by fishing location in surveyed communities, Yukon Area, 2006.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	376
Scammon Bay	0	507	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	507
Coastal District	376	507	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	883
Nunam Iqua	0	371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	371
Alakanuk	0	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580
Emmonak	0	1,531	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,561
Kotlik	124	1,119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,243
District 1	124	3,601	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,755
Mountain Village	0	249	1,410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,659
Pitkas Point	0	55	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274
St. Mary's	0	283	1,950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,233
Pilot Station	0	54	1,556	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,610
Marshall	0	0	1,535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,535
District 2	0	641	6,670	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,311
Russian Mission	0	0	0	1,851	0	0	0	0	0	0	0	0	0	0	0	0	0	1,851
Holy Cross	0	0		3,165	0	0	0	0	0	0	0	0	0	0	0	0	0	3,165
Shageluk	0	0	0	196	106	0	0	0	0	0	0	0	56	0	0	0	0	358
District 3	0	0	0	5,212	106	0	0	0	0	0	0	0	56	0	0	0	0	5,374
Anvik	0	0	0	0	958	0	0	0	0	0	0	0	0	0	0	0	0	958
Grayling	0	0	0	0	1,702	0	0	0	0	0	0	0	0	0	0	0	0	1,702
Kaltag	0	0	0	0	2,833	0	0	0	0	0	0	0	0	0	0	0	0	2,833
Nulato	0	0	0	0	2,707	0	0	0	0	0	0	0	0	0	0	0	0	2,707
Koyukuk	0	0	0	0	835	0	0	0	0	0	0	0	0	0	0	0	0	835
Galena	0	0	0	0	1,959	190	231	0	0	0	0	0	0	0	0	0	0	2,380
Ruby	0	0	0	0	0	0	304	0	0	0	0	0	0	0	0	0	0	304
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	258	0	0	0	258
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	23
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	10,994	190	535	0	0	0	0	0	0	303	0	0	0	12,022

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Table 10.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Tanana	0	0	0	0	0	0	0	69	3,725	0	0	0	0	0	0	0	0	3,794
Stevens Village	0	0	0	0	0	0	0	0	0	40	1,205	0	0	0	0	0	0	1,245
Birch Creek	0	0	0	0	0	0	0	0	0	0	174	0	0	0	0	0	0	174
Beaver	0	0	0	0	0	0	0	0	0	0	830	0	0	0	0	0	0	830
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1,019	2,125	0	0	0	0	0	3,144
Venetie	0	0	0	0	0	0	0	0	0	0	35	0	0	0	632	0	0	667
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	69	3,725	40	3,263	2,125	0	0	632	0	0	9,854
Survey Totals	500	4,749	6,700	5,212	11,100	190	535	69	3,725	40	3,263	2,125	56	303	632	0	0	39,199

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

[a] Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

[b] Totals may not add in both directions due to decimal rounding.

Table 11.–Estimated subsistence harvest including commercially retained (not including test fish) of summer chum salmon by fishing location in surveyed communities, Yukon Area, 2006.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	19,468	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,468
Scammon Bay	0	4,703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,703
Coastal District	19,468	4,703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,171
Nunam Iqua	0	2,903	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,903
Alakanuk	0	7,483	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,483
Emmonak	0	10,060	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,226
Kotlik	364	4,713	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,077
District 1	364	25,159	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,689
Mountain Village	0	1,619	11,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13,119
Pitkas Point	0	28	652	0	0	0	0	0	0	0	0	0	0	0	0	0	0	680
St. Mary's	0	1,111	6,283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,394
Pilot Station	0	806	4,089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,895
Marshall	0	0	4,154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,154
District 2	0	3,564	26,678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30,242
Russian Mission	0	0	0	1,328	0	0	0	0	0	0	0	0	0	0	0	0	0	1,328
Holy Cross	0	0	0	825	0	0	0	0	0	0	0	0	0	0	0	0	0	825
Shageluk	0	0	0	366	56	0	0	0	0	0	0	0	959	0	0	0	0	1,381
District 3	0	0	0	2,519	56	0	0	0	0	0	0	0	959	0	0	0	0	3,534
Anvik	0	0	0	0	387	0	0	0	0	0	0	0	0	0	0	0	0	387
Grayling	0	0	0	0	644	0	0	0	0	0	0	0	0	0	0	0	0	644
Kaltag	0	0	0	0	159	0	0	0	0	0	0	0	0	0	0	0	0	159
Nulato	0	0	0	0	838	0	0	0	0	0	0	0	0	0	0	0	0	838
Koyukuk	0	0	0	0	394	0	0	0	0	0	0	0	0	0	0	0	0	394
Galena	0	0	0	0	517	28	660	0	0	0	0	0	0	0	0	0	0	1,205
Ruby	0	0	0	0	0	700	1,014	0	0	0	0	0	0	0	0	0	0	1,714
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	1,122	0	0	0	1,122
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	3,254	0	0	0	3,254
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	5,170	0	0	0	5,170
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	110	0	0	0	110
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	2,939	728	1,674	0	0	0	0	0	0	9,656	0	0	0	14,997

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Table 11.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Tanana	0	0	0	0	0	0	0	0	5,474	0	0	0	0	0	0	0	0	5,474
Stevens Village	0	0	0	0	0	0	0	0	0	0	972	0	0	0	0	0	0	972
Birch Creek	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	30
Beaver	0	0	0	0	0	0	0	0	0	0	117	0	0	0	0	0	0	117
Fort Yukon	0	0	0	0	0	0	0	0	0	0	831	1,334	0	0	0	0	0	2,165
Venetie	0	0	0	0	0	0	0	0	0	0	25	0	0	0	450	0	0	475
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	5,474	0	1,975	1,334	0	0	450	0	0	9,233
Survey Totals	19,832	33,426	26,844	2,519	2,995	728	1,674	0	5,474	0	1,975	1,334	959	9,656	450	0	0	107,866

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

[a] Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

[b] Totals may not add in both directions due to decimal rounding.

Table 12.–Estimated subsistence harvest including commercially retained (not including test fish) of fall chum salmon by fishing location in surveyed communities, Yukon Area, 2006.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146
Scammon Bay	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Coastal District	146	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187
Nunam Iqua	0	735	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	735
Alakanuk	0	519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	519
Emmonak	0	1,336	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,358
Kotlik	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410
District 1	0	3,000	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,022
Mountain Village	0	1,409	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,777
Pitkas Point	0		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
St. Mary's	0	10	407	0	0	0	0	0	0	0	0	0	0	0	0	0	0	417
Pilot Station	0	11	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121
Marshall	0	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410
District 2	0	1,430	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,730
Russian Mission	0	0	0	251	0	0	0	0	0	0	0	0	0	0	0	0	0	251
Holy Cross	0	0	0	224	0	0	0	0	0	0	0	0	0	0	0	0	0	224
Shageluk	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
District 3	0	0	0	475	5	0	0	0	0	0	0	0	0	0	0	0	0	480
Anvik	0	0	0	0	118	0	0	0	0	0	0	0	0	0	0	0	0	118
Grayling	0	0	0	0	691	0	0	0	0	0	0	0	0	0	0	0	0	691
Kaltag	0	0	0	0	151	0	0	0	0	0	0	0	0	0	0	0	0	151
Nulato	0	0	0	0	751	0	0	0	0	0	0	0	0	0	0	0	0	751
Koyukuk	0	0	0	0	1,147	0	0	0	0	0	0	0	0	0	0	0	0	1,147
Galena	0	0	0	0	607	468	557	0	0	0	0	0	0	0	0	0	0	1,632
Ruby	0	0	0	0	0	88	139	0	0	0	0	0	0	0	0	0	0	227
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	313	0	0	0	313
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	240	0	0	0	240
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	393	0	0	0	393
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	3,465	556	696	0	0	0	0	0	0	946	0	0	0	5,663

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Table 12.–Page 2 of 2.

Community	Coastal District	Districts 1	2	3	Subdistricts [a] 4A	4B	4C	5A	5B	5C	5D-down	5D-up	River Drainages Innoko	Koyukuk	Chandalar	Porcupine	Black	Total by Community [b]
Tanana	0	0	0	0	0	0	0	0	23,167	0	0	0	0	0	0	0	0	23,167
Stevens Village	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	50
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	732	3,198	0	0	0	1,248	0	5,178
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520	0	0	520
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	215
District 5	0	0	0	0	0	0	0	0	23,167	0	782	3,198	0	0	520	1,248	215	29,130
Survey Totals	146	4,471	1,322	475	3,470	556	696	0	23,167	0	782	3,198	0	946	520	1,248	215	41,212

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

[a] Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

[b] Totals may not add in both directions due to decimal rounding.

Table 13.–Estimated subsistence harvest including commercially retained (not including test fish) of coho salmon by fishing location in surveyed communities, Yukon Area, 2006.

Community	Coastal District	Districts			Subdistricts [a]								River Drainages					Total by Community [b]
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175
Scammon Bay	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
Coastal District	175	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	335
Nunam Iqua	0	392	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	392
Alakanuk	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
Emmonak	0	331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331
Kotlik	0	234	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	234
District 1	0	1,033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,033
Mountain Village	0	1,491	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,652
Pitkas Point	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
St. Mary's	0	0	171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	171
Pilot Station	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Marshall	0	0	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191
District 2	0	1,491	571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,062
Russian Mission	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Holy Cross	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Shageluk	0	0	0	0	45	0	0	0	0	0	0	0	3	0	0	0	0	48
District 3	0	0	0	35	45	0	0	0	0	0	0	0	3	0	0	0	0	83
Anvik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grayling	0	0	0	0	224	0	0	0	0	0	0	0	0	0	0	0	0	224
Kaltag	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	69
Nulato	0	0	0	0	214	0	0	0	0	0	0	0	0	0	0	0	0	214
Koyukuk	0	0	0	0	330	0	0	0	0	0	0	0	0	0	0	0	0	330
Galena	0	0	0	0	63	39	35	0	0	0	0	0	0	0	0	0	0	137
Ruby	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	11
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	105	0	0	0	105
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	150
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	900	50	35	0	0	0	0	0	0	280	0	0	0	1,265

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Table 13.–Page 2 of 2.

Community	Coastal District	Districts 1	2	3	Subdistricts [a] 4A	4B	4C	5A	5B	5C	5D-down	5D-up	River Drainages Innoko	Koyukuk	Chandalar	Porcupine	Black	Total by Community [b]
Tanana	0	0	0	0	0	0	0	0	3,619	0	0	0	0	0	0	0	0	3,619
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	35
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	3,619	0	0	35	0	0	24	0	0	3,678
Survey Totals	175	2,684	571	35	945	50	35	0	3,619	0	0	35	3	280	24	0	0	8,456

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

[a] Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

[b] Totals may not add in both directions due to decimal rounding.

Table 14.–Estimated number of salmon used for subsistence purposes and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
Community	Total Households	Households Contacted [a]	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	59	312	92	15,852	4,032	81	64	110	80	16,355
Scammon Bay	78	30	495	263	4,366	1,751	41	44	160	39	5,062
Coastal District	274	89	807	279	20,218	4,396	122	78	270	89	21,417
Nunam Iqua	34	31	360	52	2,392	183	729	159	385	126	3,866
Alakanuk	123	47	548	120	7,100	1,877	512	240	76	31	8,236
Emmonak	163	90	1,121	276	9,315	1,569	1,234	409	301	90	11,971
Kotlik	98	49	1,194	238	4,801	1,243	386	164	233	86	6,614
District 1	418	217	3,223	387	23,608	2,750	2,861	527	995	180	30,687
Mountain Village	150	65	1,613	332	11,718	2,291	1,498	678	1,374	563	16,203
Pitkas Point	27	22	259	46	597	139	5	3	16	9	877
St. Mary's	124	61	1,883	446	6,020	737	405	65	166	124	8,474
Pilot Station	108	50	1,412	620	4,145	1,445	111	135	15	16	5,683
Marshall	75	28	1,321	403	4,068	1,963	410	20	191	31	5,990
District 2	484	226	6,488	926	26,548	3,428	2,429	694	1,762	578	37,227
Russian Mission	58	20	1,646	540	1,180	406	251	204	19	18	3,096
Holy Cross	65	32	3,044	735	811	283	211	207	16	24	4,082
Shageluk	32	26	335	68	1,332	204	5	0	36	0	1,708
District 3	155	78	5,025	915	3,323	535	467	291	71	30	8,886
Anvik	37	32	891	0	354	5	18	0	0	0	1,263
Grayling	49	14	1,585	511	604	426	660	522	109	77	2,958
Kaltag	62	21	2,415	747	159	74	75	59	69	114	2,718
Nulato	89	32	2,592	840	838	435	701	450	214	160	4,345
Koyukuk	38	24	752	216	394	25	1,140	290	330	68	2,616
Galena	155	49	2,247	690	595	407	1,185	516	137	101	4,164
Ruby	53	17	245	191	1,676	82	227	92	11	12	2,159
Huslia	66	21	248	350	1,077	0	259	210	105	0	1,689
Hughes	29	22	8	2	2,950	0	240	13	150	0	3,348
Allakaket	44	17	19	0	5,050	679	383	0	25	14	5,477
Alatna	13	8	10	0	5	0	0	0	0	0	15
Bettles	27	11	0	0	0	0	0	0	0	0	0
District 4	662	268	11,012	1,486	13,702	1,005	4,888	939	1,150	245	30,752

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Table 14.–Page 2 of 2.

Community	Total Households	Households Contacted [a]	Chinook Salmon Estimated Total	Chinook Salmon CI 95%	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon Estimated Total
Tanana	104	49	2,810	687	5,188	3,129	23,012	4,268	3,560	1,681	34,570
Stevens Village	25	14	1,196	542	972	945	50	0	0	0	2,218
Birch Creek	8	5	156	0	30	0	0	0	0	0	186
Beaver	28	25	662	77	81	10	0	0	0	0	743
Fort Yukon	152	48	2,433	673	1,739	569	4,358	1,750	39	39	8,569
Venetie	56	13	317	405	430	0	260	0	16	28	1,023
Chalkyitsik	32	23	0	0	0	0	160	59	0	0	160
District 5	405	177	7,574	1,178	8,440	3,317	27,840	4,613	3,615	1,682	47,469
Survey Totals	2,398	1,055	34,129	2,349	95,839	7,137	38,607	4,797	7,863	1,807	176,438

Note: A number of salmon used by a household for subsistence includes fish harvested for subsistence or retained from commercial fisheries that were kept by the household, and fish received by the household from another subsistence fisherman, commercial fisherman, or test fish project.

[a] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 15.–Estimated subsistence harvest of pink salmon, whitefish, northern pike, and sheefish by surveyed communities, Yukon Area, 2006.

Community	Total Households	Households Contacted [b]	Estimated Subsistence Harvest: Pink Salmon Estimated Total	Pink Salmon CI 95%	Large Whitefish [a] Estimated Total	Large Whitefish CI 95%	Small Whitefish [a] Estimated Total	Small Whitefish CI 95%	Northern Pike Estimated Total	Northern Pike CI 95%	Sheefish Estimated Total	Sheefish CI 95%	Total Expanded Miscellaneous Fish Harvest
Hooper Bay	196	59	1,433	787	337	347	5,845	2,512	2,769	2,272	68	104	10,452
Scammon Bay	78	30	1,381	339	718	206	1,364	364	3,410	1,669	139	58	7,012
Coastal District	274	89	2,814	857	1,055	404	7,209	2,538	6,179	2,819	207	119	17,464
Nunam Iqua	34	31	555	122	464	133	1,059	215	392	110	781	147	3,251
Alakanuk	123	47	115	117	1,136	431	2,355	1,062	1,908	815	1,175	760	6,689
Emmonak	163	90	225	186	1,504	502	5,239	1,692	3,538	730	1,545	321	12,051
Kotlik	98	49	219	117	2,628	2,401	3,678	1,209	1,904	853	1,171	499	9,600
District 1	418	217	1,114	277	5,732	2,494	12,331	2,345	7,742	1,392	4,672	975	31,591
Mountain Village	150	65	616	251	2,667	1,307	1,895	905	3,175	891	989	573	9,342
Pitkas Point	27	22	44	25	891	313	237	104	197	55	97	65	1,466
St. Mary's	124	61	236	324	2,173	1,218	704	149	2,152	766	298	58	5,563
Pilot Station	108	50	1	1	1,443	580	713	354	1,116	401	623	314	3,896
Marshall	75	28	3	0	512	300	453	731	3,458	2,868	469	233	4,895
District 2	484	226	900	410	7,686	1,928	4,002	1,230	10,098	3,126	2,476	700	25,162
Russian Mission	58	20	8	12	790	444	160	0	1,198	448	131	59	2,287
Holy Cross	65	33	17	0	245	62	318	43	324	85	47	0	951
Shageluk	32	26	0	0	149	67	130	64	227	41	30	14	536
District 3	155	79	25	12	1,184	453	608	77	1,749	458	208	61	3,774
Anvik	37	32	0	0	70	28	60	18	89	25	81	27	300
Grayling	49	13	0	0	188	189	0	0	86	86	76	68	350
Kaltag	62	21	0	0	269	237	35	57	84	41	111	87	499
Nulato	89	32	1	1	473	234	18	29	56	34	1,581	960	2,129
Koyukuk	38	24	0	0	234	15	0	0	134	4	115	25	483
Galena	155	49	0	0	406	134	148	54	212	130	249	176	1,015
Ruby	53	17	0	0	333	219	202	2	52	66	50	16	637
Huslia	66	21	0	0	292	104	190	0	138	31	112	101	732
Hughes	29	22	0	0	572	73	2,600	63	45	0	156	30	3,373
Allakaket	44	17	0	0	3,925	3,393	3,300	1,358	480	174	875	809	8,580
Alatna	13	8	0	0	60	0	100	0	40	0	76	14	276
Bettles	27	11	0	0	0	0	0	0	4	6	0	0	4
District 4	662	267	1	1	6,822	3,427	6,653	1,362	1,420	252	3,482	1,278	18,378

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Community	Total Households	Households Contacted [b]	Estimated Subsistence Harvest: Pink Salmon Estimated Total	Pink Salmon CI 95%	Large Whitefish [a] Estimated Total	Large Whitefish CI 95%	Small Whitefish [a] Estimated Total	Small Whitefish CI 95%	Northern Pike Estimated Total	Northern Pike CI 95%	Sheefish Estimated Total	Sheefish CI 95%	Total Expanded Miscellaneous Fish Harvest
Tanana	104	49	0	0	3,900	639	2,366	675	298	261	1,300	384	7,864
Stevens Village	25	14	0	0	48	28	0	0	115	83	64	33	227
Birch Creek	8	5	0	0	275	213	0	0	81	52	13	11	369
Beaver	28	25	0	0	56	40	0	0	83	50	40	39	179
Fort Yukon	152	48	0	0	363	150	359	249	211	170	222	94	1,155
Venetie	56	13	0	0	50	0	32	0	0	0	0	0	82
Chalkyitsik	32	23	0	0	1	1	191	87	157	70	61	70	410
District 5	405	177	0	0	4,693	692	2,948	725	945	337	1,700	404	10,286
Survey Totals	2,398	1,055	4,854	990	27,172	4,746	33,751	3,980	28,133	4,477	12,745	1,804	106,655

Note: The estimated harvest in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests. Estimations include 95% confidence interval (CI 95%).

[a] Large whitefish are considered to be whitefish that are 4 pounds or larger and small whitefish are less than 4 pounds.

[b] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 16.–Reported subsistence harvest of other miscellaneous fish species by surveyed communities, Yukon Area, 2006.

Community	Total Households	Households Contacted [a]	Reported Harvest of Miscellaneous Fish Species (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Arctic Lamprey [b]	Tomcod	Arctic Grayling	Longnose Sucker	Arctic Char	Alaska Blackfish	Sockeye Salmon [c]	
Hooper Bay	196	59	307	0	5,667	0	0	0	20,380	19	26,373
Scammon Bay	78	26	143	0	3,607	0	0	45	16,300	11	20,106
Coastal District	274	85	450	0	9,274	0	0	45	36,680	30	46,479
Nunam Iqua	34	19	394	100	1,356	0	0	0	17,750	16	19,616
Alakanuk	123	32	191	0	120	0	0	9	60,900	17	61,237
Emmonak	163	70	509	0	1,976	0	0	0	37,010	53	39,548
Kotlik	98	41	415	0	701	0	0	9	6,590	34	7,749
District 1	418	162	1,509	100	4,153	0	0	18	122,250	120	128,150
Mountain Village	150	48	620	405	125	20	0	0	17,740	45	18,955
Pitkas Point	27	19	87	6	0	0	0	0	7,350	5	7,448
St. Mary's	124	43	973	530	20	4	0	1	9,310	26	10,864
Pilot Station	108	49	667	45	80	0	0	0	18,900	4	19,696
Marshall	75	24	316	420	0	0	0	0	2,150	4	2,890
District 2	484	183	2,663	1,406	225	24	0	1	55,450	84	59,853
Russian Mission	58	19	102	0	0	0	0	0	2,800	2	2,904
Holy Cross	65	32	14	0	0	5	0	0	0	18	37
Shageluk	32	24	0	0	0	0	0	0	200	14	214
District 3	155	75	116	0	0	5	0	0	3,000	34	3,155
Anvik	37	32	0	246	0	12	0	0	20	9	287
Grayling	49	10	50	340	0	15	5	0	0	2	412
Kaltag	62	19	1	0	0	71	0	5	0	0	77
Nulato	89	31	49	0	0	495	0	258	0	4	806
Koyukuk	38	21	22	0	0	0	0	0	0	0	22
Galena	155	46	65	0	0	10	20	0	1,275	12	1,382
Ruby	53	17	0	0	0	0	0	0	0	0	0
Huslia	66	20	3	0	0	0	1	5	0	15	24
Hughes	29	20	32	0	0	12	28	0	0	15	87
Allakaket	44	16	1	0	0	23	0	10	0	0	34
Alatna	13	7	0	0	0	0	0	0	20	0	20
Bettles	27	11	0	0	0	23	0	3	0	0	26
District 4	662	250	223	586	0	661	54	281	1,315	57	3,177

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Community	Total Households	Households Contacted [a]	Reported Harvest of Miscellaneous Fish Species (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Arctic Lamprey [b]	Tomcod	Arctic Grayling	Longnose Sucker	Arctic Char	Alaska Blackfish	Sockeye Salmon [c]	
Tanana	104	43	59	0	0	37	21	0	0	2	119
Stevens Village	25	12	25	0	0	0	0	0	0	5	30
Birch Creek	8	5	0	0	0	0	0	0	0	0	0
Beaver	28	22	0	0	0	0	0	0	0	0	0
Fort Yukon	152	46	24	0	0	11	30	0	0	1	66
Venetie	56	12	0	0	0	407	0	0	0	0	407
Chalkyitsik	32	22	0	0	0	0	0	0	0	0	0
District 5	405	162	108	0	0	455	51	0	0	8	622
Survey Totals	2,398	917	5,069	2,092	13,652	1,145	105	345	218,695	333	241,436

[a] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

[b] Surveys are conducted before the Arctic lamprey fishery occurs in November and December. Consequently Arctic lamprey totals are for previous year harvest, i.e., the 2006 reported harvest here is for the calendar year 2005.

[c] Due to low harvest numbers of sockeye salmon and difficulties with identification by fishermen, the harvest of this salmon species is not estimated.

Table 17.–Responses to survey question assessing percentage of subsistence salmon needs being met, by community, by species, Yukon Area, 2006.

		Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species				
		Chinook Salmon				
Community	Total Households	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	51	75%	8%	6%	12%
Scammon Bay	78	28	36%	4%	11%	50%
Coastal District	274	79	61%	6%	8%	25%
Nunam Iqua	34	23	26%	17%	13%	43%
Alakanuk	123	41	37%	20%	10%	34%
Emmonak	163	73	23%	10%	15%	52%
Kotlik	98	45	33%	9%	9%	49%
District 1	418	182	29%	13%	12%	46%
Mountain Village	150	50	28%	8%	16%	48%
Pitkas Point	27	15	27%	27%	0%	47%
St. Mary's	124	49	12%	16%	12%	59%
Pilot Station	108	47	28%	21%	15%	36%
Marshall	75	27	22%	19%	37%	22%
District 2	484	188	23%	16%	16%	44%
Russian Mission	58	17	18%	12%	18%	53%
Holy Cross	65	29	21%	7%	7%	66%
Shageluk	32	22	45%	14%	0%	41%
District 3	155	68	28%	10%	7%	54%
Anvik	37	24	38%	8%	4%	50%
Grayling	49	13	8%	31%	31%	31%
Kaltag	62	18	0%	17%	0%	83%
Nulato	89	30	23%	20%	17%	40%
Koyukuk	38	21	19%	14%	19%	48%
Galena	155	40	30%	13%	20%	38%
Ruby	53	12	42%	33%	0%	25%
Huslia	66	16	69%	6%	0%	25%
Hughes	29	12	75%	8%	0%	17%
Allakaket	44	15	80%	13%	0%	7%
Alatna	13	5	0%	40%	0%	60%
Bettles	27	4	75%	0%	0%	25%
District 4	662	210	35%	16%	10%	39%
Tanana	104	37	46%	5%	16%	32%
Stevens Village	25	12	25%	17%	17%	42%
Birch Creek	8	3	67%	0%	0%	33%
Beaver	28	22	36%	18%	27%	18%
Fort Yukon	152	37	35%	19%	5%	41%
Venetie	56	9	56%	0%	11%	33%
Chalkyitsik	32	9	44%	0%	0%	56%
District 5	405	129	40%	12%	13%	35%
Survey Totals	2,398	856	34%	13%	12%	41%

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Community	Total Households	Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species: Summer Chum Salmon: Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	56	21%	20%	30%	29%
Scammon Bay	78	27	11%	7%	11%	70%
Coastal District	274	83	18%	16%	24%	42%
Nunam Iqua	34	23	22%	17%	9%	52%
Alakanuk	123	42	24%	17%	5%	55%
Emmonak	163	80	16%	6%	6%	71%
Kotlik	98	45	22%	11%	18%	49%
District 1	418	190	20%	11%	9%	60%
Mountain Village	150	53	19%	6%	9%	66%
Pitkas Point	27	15	27%	20%	7%	47%
St. Mary's	124	50	8%	14%	16%	62%
Pilot Station	108	46	17%	13%	13%	57%
Marshall	75	27	11%	15%	33%	41%
District 2	484	191	15%	12%	15%	58%
Russian Mission	58	16	44%	0%	13%	44%
Holy Cross	65	25	28%	4%	8%	60%
Shageluk	32	17	53%	12%	0%	35%
District 3	155	58	40%	5%	7%	48%
Anvik	37	20	45%	10%	5%	40%
Grayling	49	9	33%	0%	22%	44%
Kaltag	62	8	25%	13%	0%	63%
Nulato	89	8	13%	13%	13%	63%
Koyukuk	38	5	60%	0%	0%	40%
Galena	155	19	37%	11%	5%	47%
Ruby	53	11	36%	27%	0%	36%
Huslia	66	10	70%	0%	0%	30%
Hughes	29	7	57%	14%	0%	29%
Allakaket	44	11	55%	18%	9%	18%
Alatna	13	3	33%	0%	33%	33%
Bettles	27	2	100%	0%	0%	0%
District 4	662	113	43%	11%	6%	40%
Tanana	104	22	41%	0%	5%	55%
Stevens Village	25	4	0%	0%	0%	100%
Birch Creek	8	1	0%	0%	0%	100%
Beaver	28	4	50%	25%	0%	25%
Fort Yukon	152	15	33%	7%	0%	60%
Venetie	56	3	33%	33%	33%	0%
Chalkyitsik	32	2	50%	0%	0%	50%
District 5	405	51	35%	6%	4%	55%
Survey Totals	2,398	686	25%	11%	12%	52%

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Community	Total Households	Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species: Fall Chum Salmon: Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	7	29%	14%	43%	14%
Scammon Bay	78	3	67%	0%	0%	33%
Coastal District	274	10	40%	10%	30%	20%
Nunam Iqua	34	11	45%	0%	9%	45%
Alakanuk	123	16	50%	6%	6%	38%
Emmonak	163	43	28%	9%	12%	51%
Kotlik	98	28	46%	14%	4%	36%
District 1	418	98	39%	9%	8%	44%
Mountain Village	150	34	41%	3%	6%	50%
Pitkas Point	27	5	80%	20%	0%	0%
St. Mary's	124	21	19%	0%	14%	67%
Pilot Station	108	5	80%	0%	0%	20%
Marshall	75	13	69%	0%	8%	23%
District 2	484	78	45%	3%	8%	45%
Russian Mission	58	7	71%	14%	0%	14%
Holy Cross	65	13	46%	0%	8%	46%
Shageluk	32	9	89%	0%	0%	11%
District 3	155	29	66%	3%	3%	28%
Anvik	37	15	60%	0%	7%	33%
Grayling	49	5	20%	20%	40%	20%
Kaltag	62	14	7%	21%	7%	64%
Nulato	89	23	57%	17%	13%	13%
Koyukuk	38	15	60%	0%	27%	13%
Galena	155	20	45%	10%	10%	35%
Ruby	53	5	60%	0%	0%	40%
Huslia	66	9	33%	11%	0%	56%
Hughes	29	12	33%	17%	0%	50%
Allakaket	44	12	67%	25%	0%	8%
Alatna	13	1	0%	0%	0%	100%
Bettles	27	2	100%	0%	0%	0%
District 4	662	133	47%	12%	10%	32%
Tanana	104	26	46%	0%	4%	50%
Stevens Village	25	1	0%	0%	0%	100%
Birch Creek	8	0	-	-	-	-
Beaver	28	5	100%	0%	0%	0%
Fort Yukon	152	19	42%	11%	0%	47%
Venetie	56	4	75%	0%	0%	25%
Chalkyitsik	32	5	60%	0%	0%	40%
District 5	405	60	52%	3%	2%	43%
Survey Totals	2,398	408	46%	8%	8%	38%

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Table 17.–Page 4 of 4.

Community	Total Households	Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species: Coho Salmon: Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	9	22%	33%	22%	22%
Scammon Bay	78	2	0%	0%	0%	100%
Coastal District	274	11	18%	27%	18%	36%
Nunam Iqua	34	10	40%	0%	10%	50%
Alakanuk	123	15	60%	13%	0%	27%
Emmonak	163	22	55%	9%	5%	32%
Kotlik	98	8	50%	13%	0%	38%
District 1	418	55	53%	9%	4%	35%
Mountain Village	150	17	29%	0%	12%	59%
Pitkas Point	27	4	100%	0%	0%	0%
St. Mary's	124	6	33%	0%	0%	67%
Pilot Station	108	0	-	-	-	-
Marshall	75	5	80%	0%	20%	0%
District 2	484	32	47%	0%	9%	44%
Russian Mission	58	4	50%	0%	0%	50%
Holy Cross	65	11	55%	0%	0%	45%
Shageluk	32	10	80%	0%	0%	20%
District 3	155	25	64%	0%	0%	36%
Anvik	37	10	90%	0%	0%	10%
Grayling	49	5	0%	40%	40%	20%
Kaltag	62	1	0%	0%	0%	100%
Nulato	89	0	-	-	-	-
Koyukuk	38	3	67%	0%	0%	33%
Galena	155	7	57%	0%	0%	43%
Ruby	53	4	75%	0%	0%	25%
Huslia	66	5	60%	0%	0%	40%
Hughes	29	2	50%	50%	0%	0%
Allakaket	44	1	100%	0%	0%	0%
Alatna	13	1	100%	0%	0%	0%
Bettles	27	1	0%	0%	0%	100%
District 4	662	40	60%	8%	5%	28%
Tanana	104	6	33%	0%	0%	67%
Stevens Village	25	0	-	-	-	-
Birch Creek	8	0	-	-	-	-
Beaver	28	1	100%	0%	0%	0%
Fort Yukon	152	6	83%	0%	0%	17%
Venetie	56	2	50%	0%	0%	50%
Chalkyitsik	32	3	67%	0%	0%	33%
District 5	405	18	61%	0%	0%	39%
Survey Totals	2,398	181	54%	6%	5%	35%

Note: Dashes indicate indefinable values.

Table 18.–Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2006.

Permit Fishing Area	Permit [a] Type	Issued [b]	Returned	Percent Returned	Number of Permits Returned that Fished [c]	Reported Harvest: Chinook [d]	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Northern Pike	Longnose Suckers	Arctic Grayling
Subsistence Permit															
Koyukuk Middle and South Fork Rivers	SF	1	1	100%	1	0	0	0	0	0	0	0	0	0	1
Yukon River Rampart Area	SR	19	19	100%	16	1,083	647	318	0	177	0	6	11	10	30
Yukon River near Haul Road Bridge	SY	68	66	97%	53	1,952	1,063	4,855	79	69	10	6	6	0	4
Yukon River near Circle and Eagle [e]	SE	85	82	96%	59	3,302	1,034	17,866	22	191	50	23	55	83	384
Tanana River Subdistrict 6A	SA	19	19	100%	15	362	85	3,355	1,546	12	1	1	0	0	0
Tanana River Subdistrict 6B [f]	SB	78	76	97%	42	423	885	13,047	7,897	763	12	26	88	21	4
Tanana River Upstream of Subdistrict 6C	SU	23	22	96%	17	0	0	19	0	1,756	0	0	28	181	83
Kantishna River Subdistrict 6A	SK	5	5	100%	3	141	29	339	737	27	0	34	30	282	0
Tolovana River Pike Subdistrict 6B	ST	101	97	96%	56	0	11	6	2	117	2	27	788	9	0
Subsistence Permit Subtotals		399	387	97%	262	7,263	3,754	39,805	10,283	3,112	75	123	1,006	586	506
Personal Use Permit															
Tanana River Salmon Subdistrict 6C	PC	60	60	100%	35	89	262	333	279	14	5	1	2	0	0
Tanana River Whitefish Upstream of Subdistrict 6C	PW	7	7	100%	4	0	0	0	0	273	0	3	0	184	1
Personal Use Permit Subtotals		67	67	100%	39	89	262	333	279	287	5	4	2	184	1
Permit Totals		466	454	97%	301	7,352	4,016	40,138	10,562	3,399	80	127	1,008	770	507

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[a] Permits returned as of May 1, 2007.

[b] Includes 32 households that were "issued" permits for more than one area, and includes one household that was issued duplicate permits for the same area.

[c] Includes 10 households that "fished" in 2 different permit areas.

[d] Does not include District 6 commercial related harvest of 265 Chinook salmon caught but "not sold" during commercial fishing and retained for subsistence use.

[e] Does not include fish distributed to community households from ADF&G Eagle Sonar test fish project (20 Chinook and 15 fall chum salmon).

[f] Does not include fish distributed to community households from ADF&G Nenana test fish wheel project (38 Chinook, 159 fall chum, and 389 coho salmon).

Table 19.–Reported subsistence and personal use fish harvested under the authority of a permit, listed by fishery, by community of residence, and by drainage, Yukon Area, 2006.

Community	Harvest by Drainage	Permits [a] Issued [b]	Returned	Percent Returned	Number of Permits Returned that Fished [c]	Reported Harvest: Chinook [d]	Summer Chum	Fall Chum [d]	Coho	Whitefish	Sheefish	Burbot	Northern Pike	Longnose Sucker	Arctic Grayling
Subsistence Permit															
Central	Yukon River	8	8	100%	5	130	2	0	0	0	0	3	2	0	0
Circle	Yukon River	21	18	86%	11	694	58	664	22	29	10	0	28	40	0
Eagle [e]	Yukon River	42	42	100%	33	2,283	974	16,786	0	151	39	7	15	43	384
Fairbanks (FNSB) [f]	Yukon River	80	79	99%	63	2,184	1,341	5,269	79	157	10	22	21	0	4
	Tanana River	26	25	96%	16	125	62	1,346	743	12	9	0	0	0	0
	Tolovana River	85	81	95%	50	0	11	6	2	5	0	0	428	0	0
	Kantishna River	1	1	100%	1	0	0	0	0	0	0	0	20	0	0
	FNSB Subtotal	192	186	97%	130	2,309	1,414	6,621	824	174	19	22	469	0	4
Healy	Yukon River	1	1	100%	1	25	0	0	0	0	0	0	0	0	0
	Tanana River	7	7	100%	4	0	0	1,408	1,109	158	0	0	9	0	0
	Healy Subtotal	8	8	100%	5	25	0	1,408	1,109	158	0	0	9	0	0
Manley	Yukon River	1	1	100%	1	223	85	16	0	0	0	0	0	0	0
	Tanana River	12	12	100%	11	356	83	3,355	1,546	9	1	1	0	0	0
	Kantishna River	1	1	100%	1	5	6	19	125	15	0	0	9	16	0
	Manley Subtotal	14	14	100%	13	584	174	3,390	1,671	24	1	1	9	16	0
Minto	Yukon River	1	1	100%	1	55	0	0	0	0	0	0	0	0	0
	Tanana River	21	21	100%	5	31	460	242	14	30	0	0	70	0	0
	Tolovana River	15	15	100%	6	0	0	0	0	112	2	27	360	9	0
	Minto Subtotal	37	37	100%	12	86	460	242	14	142	2	27	430	9	0
Nenana [g]	Tanana River	28	27	96%	20	273	365	10,051	6,031	566	3	26	9	21	4
	Kantishna River	2	2	100%	1	136	23	320	612	12	0	34	1	266	0
	Nenana Subtotal	30	29	97%	21	409	388	10371	6643	578	3	60	10	287	4
Rampart	Yukon River	8	8	100%	5	429	135	250	0	100	0	2	5	10	30
Stevens Village	Yukon River	3	3	100%	3	287	147	26	0	0	0	0	0	0	0
Villages (UTV) [h]	Yukon River	5	5	100%	4	19	0	28	0	0	1	1	1	0	0
	Tanana River	23	22	96%	17	0	0	19	0	1,756	0	0	28	181	83
	UTV Subtotal	28	27	96%	21	19	0	47	0	1756	1	1	29	181	83

-continued-

Table 19.–Page 2 of 2.

Community	Harvest by Drainage	Permits [a] Issued [b]	Returned	Percent Returned	Number of Permits Returned that Fished [c]	Reported Harvest: Chinook [d]	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Northern Pike	Longnose Sucker	Arctic Grayling
Other Subsistence [i]	Yukon River	2	1	50%	1	8	2	0	0	0	0	0	0	0	0
	Tanana River	3	3	100%	1	0	0	0	0	0	0	0	0	0	0
	Tolovana River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0
	Kantishna River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0
	Upper Koyukuk R.	1	1	100%	1	0	0	0	0	0	0	0	0	0	1
	Other Subtotal	8	7	88%	3	8	2	0	0	0	0	0	0	0	1
Subsistence Permit Subtotals		399	387	97%	262	7,263	3,754	39,805	10,283	3,112	75	123	1,006	586	506
Personal Use Permit															
Fairbanks (FNSB) [f]	Tanana River	61	61	100%	33	84	254	292	279	13	5	1	2	55	0
Others Personal Use [j]	Tanana River	6	6	100%	6	5	8	41	0	274	0	3	0	129	1
Personal Use Permit Subtotals		67	67	100%	39	89	262	333	279	287	5	4	2	184	1
Permit Totals		466	454	97%	301	7,352	4,016	40,138	10,562	3,399	80	127	1,008	770	507

[a] Permits returned as of May 1, 2007.

[b] Includes 32 households that were "issued" permits for more than one area, and includes one household that was issued duplicate permits for the same area.

[c] Includes 10 households that "fished" in 2 different permit areas.

[d] Does not include District 6 commercial related harvest of 265 Chinook salmon caught but "not sold" during commercial fishing and retained for subsistence use.

[e] Does not include fish distributed to community households from ADF&G Eagle Sonar test fish project (20 Chinook and 15 fall chum salmon).

[f] Includes residents from the Fairbanks North Star Borough (FNSB) communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

[g] Does not include fish distributed to community households from ADF&G Nenana test fish wheel project (38 Chinook, 159 fall chum, and 389 coho salmon).

[h] Upper Tanana Villages (UTV) include residents from the communities of Delta Junction, Northway, Tanacross, and Tok.

[i] "Other Subsistence" represents residents from Anderson, Barrow, Denali Park, Eagle River, Gakona, Lake Minchumina, and Wiseman who were issued a subsistence fishing permit for Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk rivers.

[j] "Others Personal Use" includes residents from Anchorage, Nenana and Delta Junction.

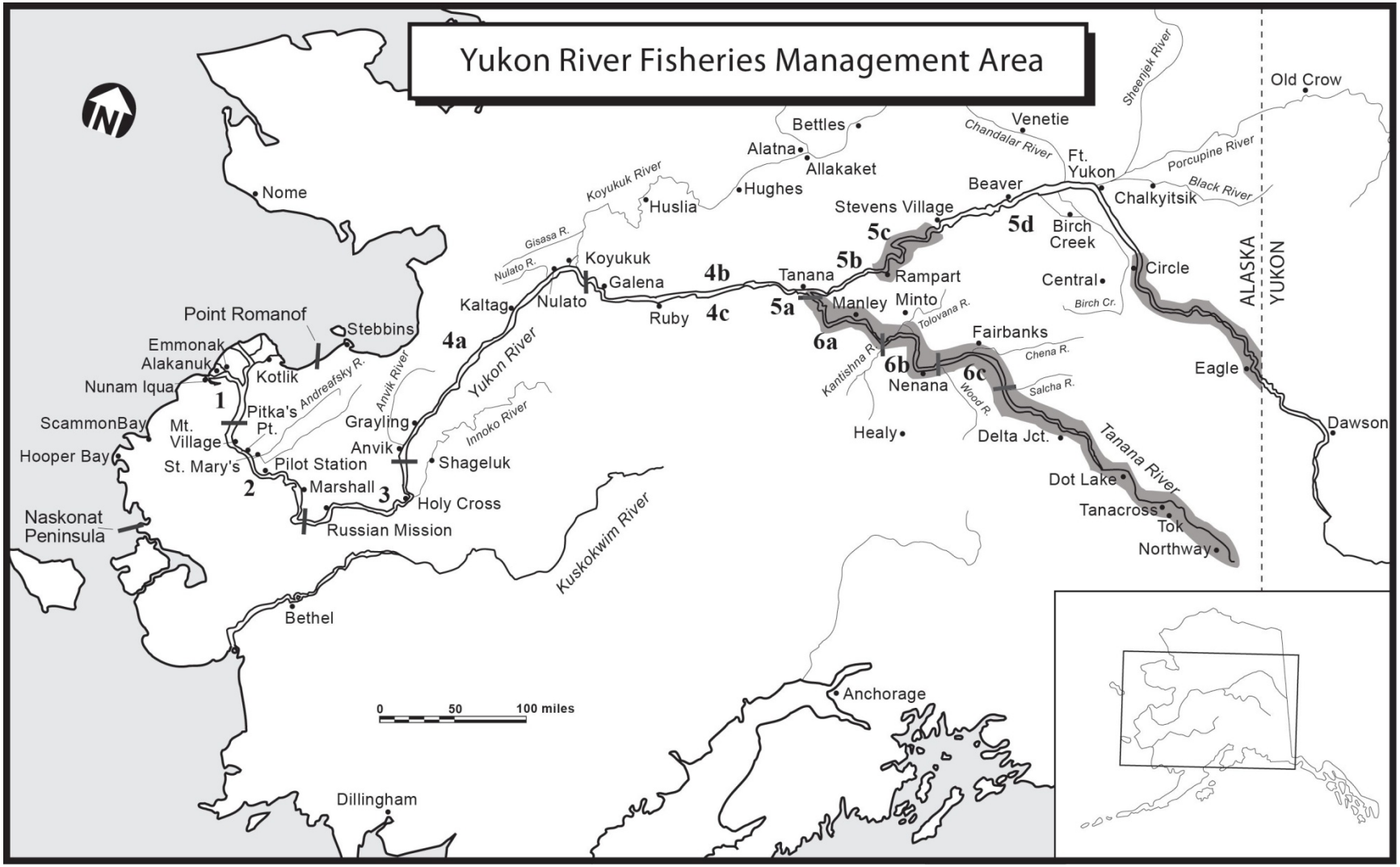
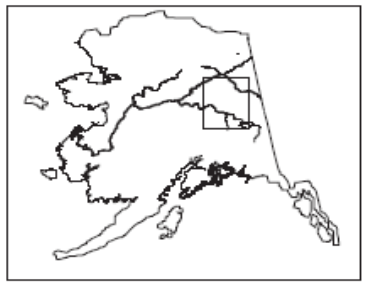


Figure 1.–Map of Alaska portion of Yukon River drainage showing communities and fishing districts. Subsistence and personal use permit areas are shaded.

5 AAC 99.015 JOINT BOARD NONSUBSISTENCE AREAS. (4) The Fairbanks Nonsubsistence Area is comprised of the following: within Unit 20(A) as defined by 5 AAC 92.450(20)(A) east of the Wood River drainage and south of the Rex Trail but including the upper Wood River drainage south of its confluence with Chicken Creek, within Unit 20(B) as defined by 5AAC 92.450(20)(B) the North Star Borough and that portion of the Washington Creek drainage east of the Elliot Highway, within 20(D) as defined by 5 AAC 92.450(20)(D) west of the Tanana River between its confluence's with the Johnson and Delta Rivers, west of the west bank of the Johnson River, and north and west of the Volkmar drainage, including the Goodpaster River drainage, and within Unit 25(C) as defined by 5 AAC 92.450(25)(C) the Preacher and Beaver Creek drainages.



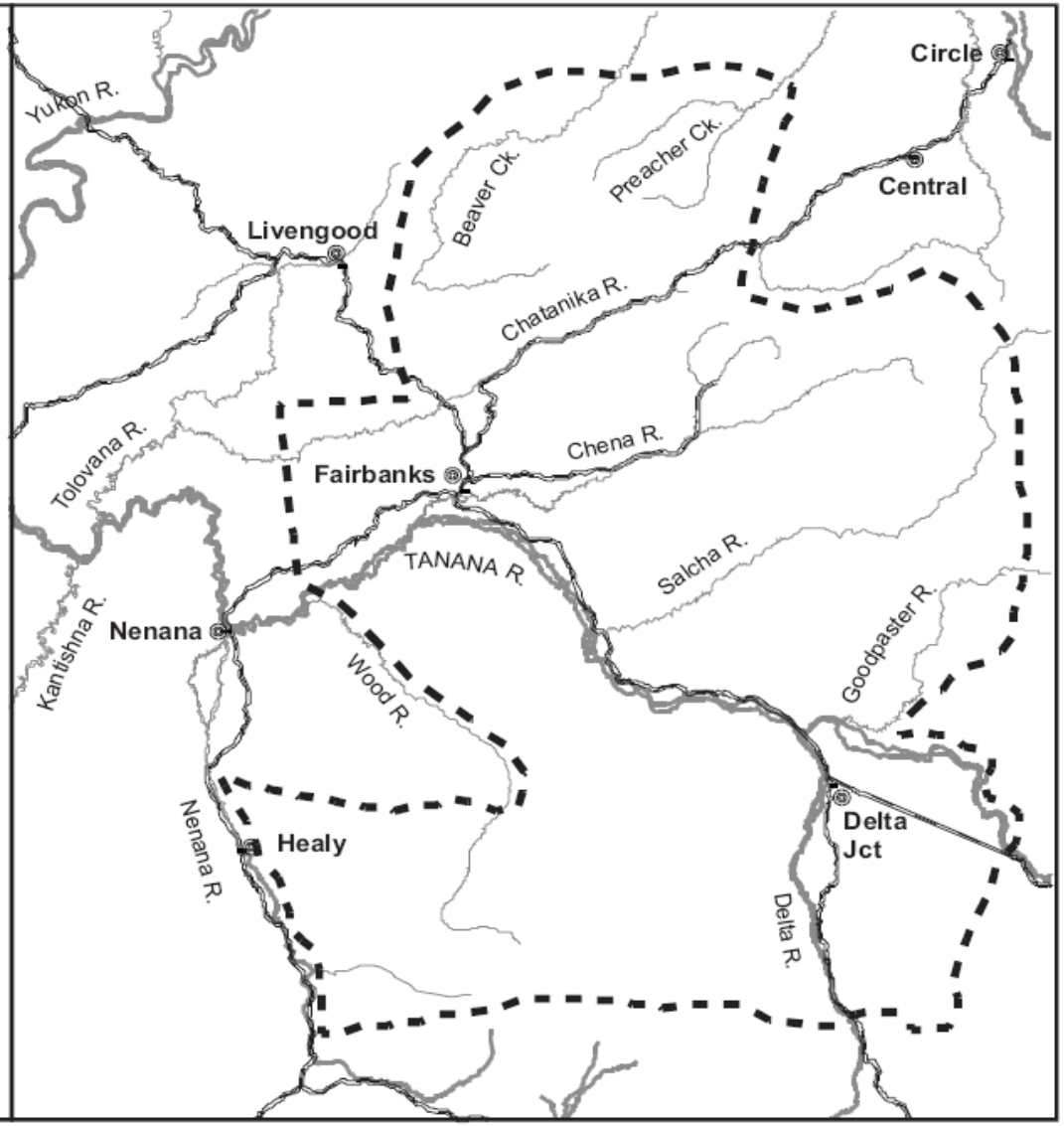


Figure 2.–Map of the Fairbanks Nonsubsistence Area.

Date of Survey _____
Person Interviewed _____
Relation to HH _____

Interviewer _____

Community	LABEL	HHID#
Head of Household	LABEL	
Mailing Address	LABEL	Telephone#
Significant Other	LABEL	

2006 Yukon Area Post-Season Subsistence Salmon Harvest Survey

CONFIDENTIAL INFORMATION

1. **We would like to make sure we have the correct name and address for your household.**

Head of Household _____
Mailing Address _____ Telephone _____
Permanent Note _____
Significant Other _____
Permanent Note _____

2. **How many people live in your household?** _____

3. **Did anyone in your household catch salmon for subsistence use this year?** Yes ____ No ____ (If "No," go to area II)
Includes salmon caught during commercial openings but retained for subsistence. IF YES, COMPLETE ALL OF PART ONE.

Adult household member declined to be interviewed. [ ] Reason given: _____

I. HOUSEHOLDS THAT CAUGHT SALMON

4. **May I have your salmon catch calendar?** Yes ____ No ____ Already sent in ____ (Are all fish harvested on calendar?)

5. **How many total salmon did you or your fishing group catch this year?** (Group may include other households)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

6. **How many households help catch these fish?** _____ (Names) _____

*7. **How many total salmon did your household catch for subsistence purposes this year?**
(Include only fish caught by this household, not the group, includes fish kept from commercial periods.)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

8. **Did you or anyone in this household commercial fish this year?** Yes _____ No _____

9. **If Yes.** How many salmon caught during commercial openings did your household keep for subsistence use?
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

10. **Did your household "lose" any salmon? (e.g. to bears, birds, spoilage, diseased fish, Ichthyophonus, etc.)**
(If fish was not fit for humans but was fed to dogs, then it was not "lost.")
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

11. **How many salmon did you keep for your household's use? (do not include fish given away or 'lost")
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

12. **Did your household share the salmon catch with any other households?** (names, species and numbers)

13. **Where do you catch your subsistence salmon?** (Circle all that apply and show harvest by area if more than one)
Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D (Ft Yukon ↑ or ↓) Innoko Koyukuk Chandalar Porcupine Black

Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

14. **What is your household's primary type of salmon fishing gear?** (In order of importance 1= primary)
SET NET _____ DRIFT NET _____ FISH WHEEL _____ HOOK & LINE _____ DIPNET_____ OTHER _____

Figure 3.–Yukon Area postseason subsistence salmon harvest survey form, 2006.

II. ALL HOUSEHOLDS

15. Did your household catch any other fish besides salmon? Yes _____ No _____
(Harvest numbers should include from September/October of last year to now. Large Whitefish are 4 pounds or greater.)

LG WHITEFISH _____ SM WHITEFISH _____ SHEEFISH _____ BURBOT _____ PIKE _____ BLACKFISH _____

GRAYLING _____ SUCKERS _____ TROUT (Arctic Char) _____ EELS (Lamprey) _____ TOMCOD (Saffron) _____

Did your household catch any sockeye (red) salmon this year? Yes _____ No _____ How many? _____

****16. Was your household given any salmon? Yes ____ No ____** Code: S=Subsistence, C=Commercial, T=Test Fish

Code: _____ Fishermen/Project (Name) _____

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Code: _____ Fishermen/Project (Name) _____

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

17. How many dogs (including puppies) does your household have? _____ (if "No" on questions 3 and 16 go to question 22)

18. Do you feed whole salmon to your dogs? Yes _____ No _____ Only Feed Scraps ____ (if "No" go to question 21)

19. Were any of the salmon put up for the dogs from the commercial fishery? Yes _____ No _____

20. Estimate harvest of salmon put up for dogs this year by fishery (numbers should represent whole fish, not scraps):

(subsistence) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____

(commercial) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____

21. How successful was your household in meeting its subsistence salmon needs? (indicate percent success with "x")
"No Need" means there was no harvest or use of a species because there was no need for the species, e.g. species may not be traditionally fished in that area or respondent may not wish to harvest the species.

(No Need)

- ☐ Chinook ___(100%) ___(75%) ___ (50%) ___(25%) ___(0%) If poor, why? _____
- ☐ Summer Chum ___(100%) ___(75%) ___ (50%) ___(25%) ___(0%) If poor, why? _____
- ☐ Fall Chum ___(100%) ___(75%) ___ (50%) ___(25%) ___(0%) If poor, why? _____
- ☐ Coho ___(100%) ___(75%) ___ (50%) ___(25%) ___(0%) If poor, why? _____

22. Additional Comments: _____

_____

_____

_____

THANK YOU! THIS INFORMATION IS USED TO DOCUMENT THE SUBSISTENCE SALMON HARVEST WITHIN THE YUKON RIVER DRAINAGE AND TO TRY TO ENSURE THERE WILL BEENOUGH SALMON FOR THE FUTURE.

Surveyor Comments:

Official Use - This area is to be filled in by Fish and Game.

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH (Totals from question *7)

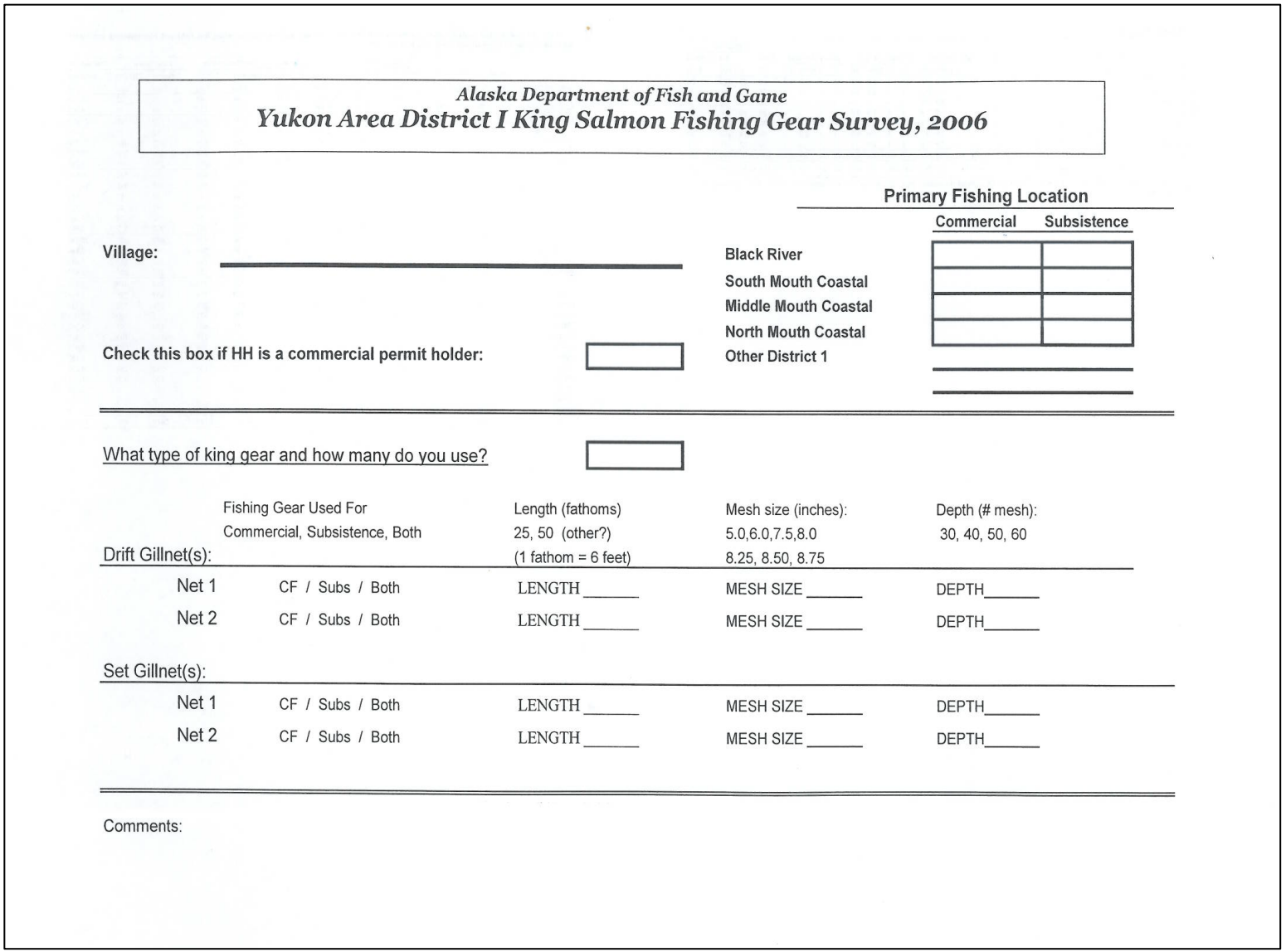
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE (Add totals from questions **11 and **16)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Complete Survey _____ Partial Survey _____ No Survey _____

Figure 3.–Page 2 of 2.



Alaska Department of Fish and Game

Yukon Area District I King Salmon Fishing Gear Survey, 2006

Primary Fishing Location

	Commercial	Subsistence
Black River		
South Mouth Coastal		
Middle Mouth Coastal		
North Mouth Coastal		
Other District 1		

Village: _____

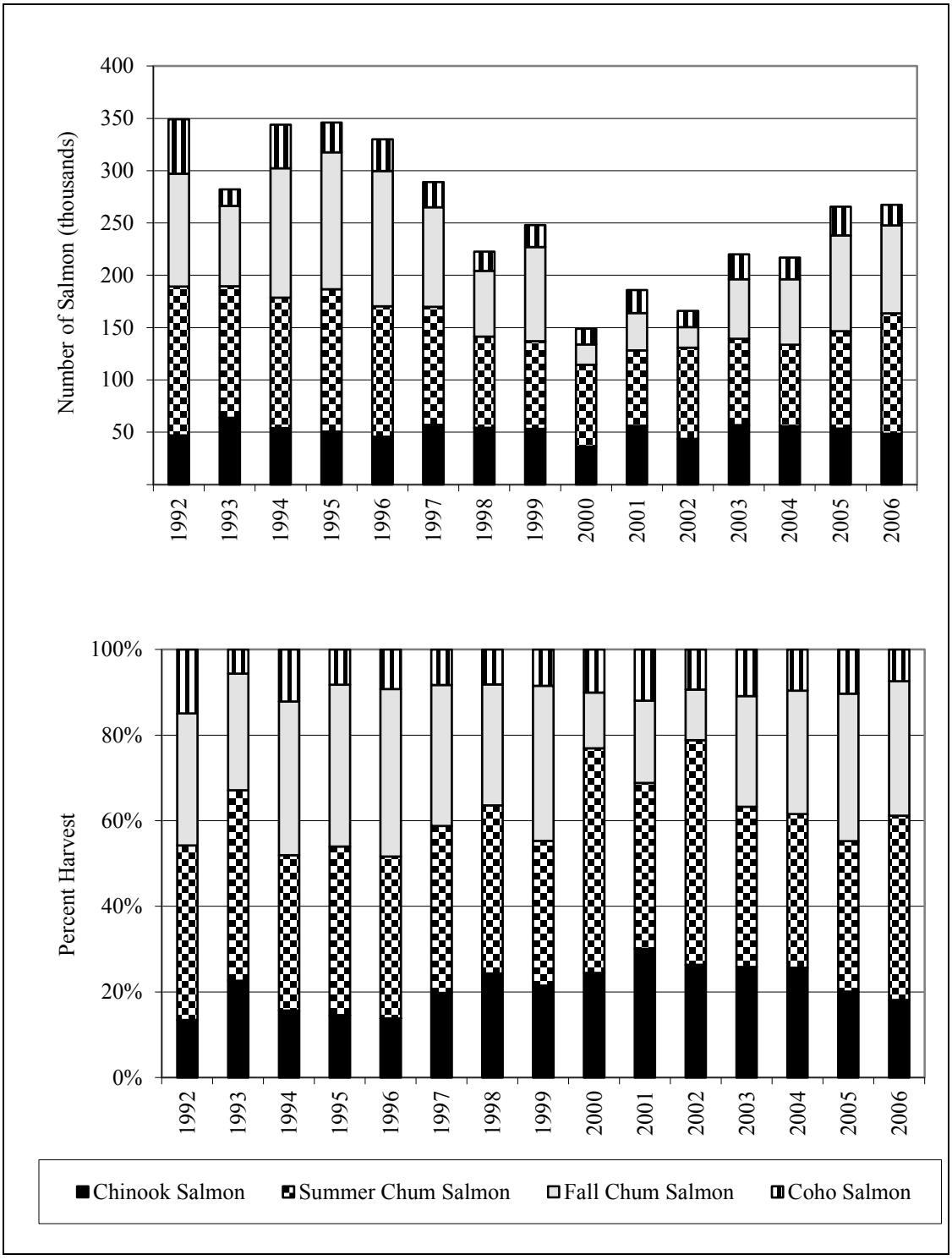
Check this box if HH is a commercial permit holder: ☐

What type of king gear and how many do you use? ☐

	Fishing Gear Used For Commercial, Subsistence, Both	Length (fathoms) 25, 50 (other?) (1 fathom = 6 feet)	Mesh size (inches): 5.0,6.0,7.5,8.0 8.25, 8.50, 8.75	Depth (# mesh): 30, 40, 50, 60
Drift Gillnet(s):				
Net 1	CF / Subs / Both	LENGTH _____	MESH SIZE _____	DEPTH_____
Net 2	CF / Subs / Both	LENGTH _____	MESH SIZE _____	DEPTH_____
Set Gillnet(s):				
Net 1	CF / Subs / Both	LENGTH _____	MESH SIZE _____	DEPTH_____
Net 2	CF / Subs / Both	LENGTH _____	MESH SIZE _____	DEPTH_____

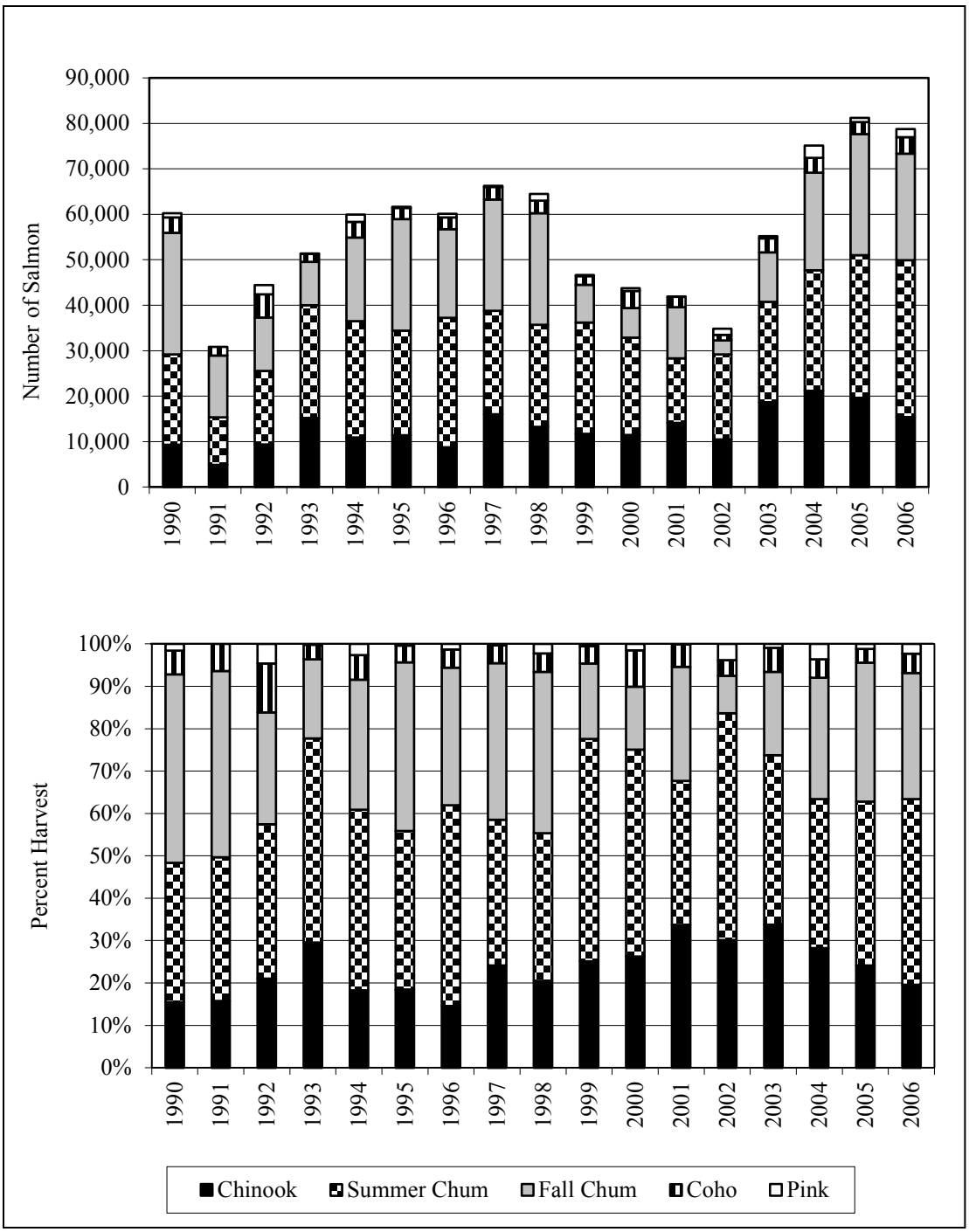
Comments:

Figure 4.–Chinook salmon fishing gear survey form, 2006.



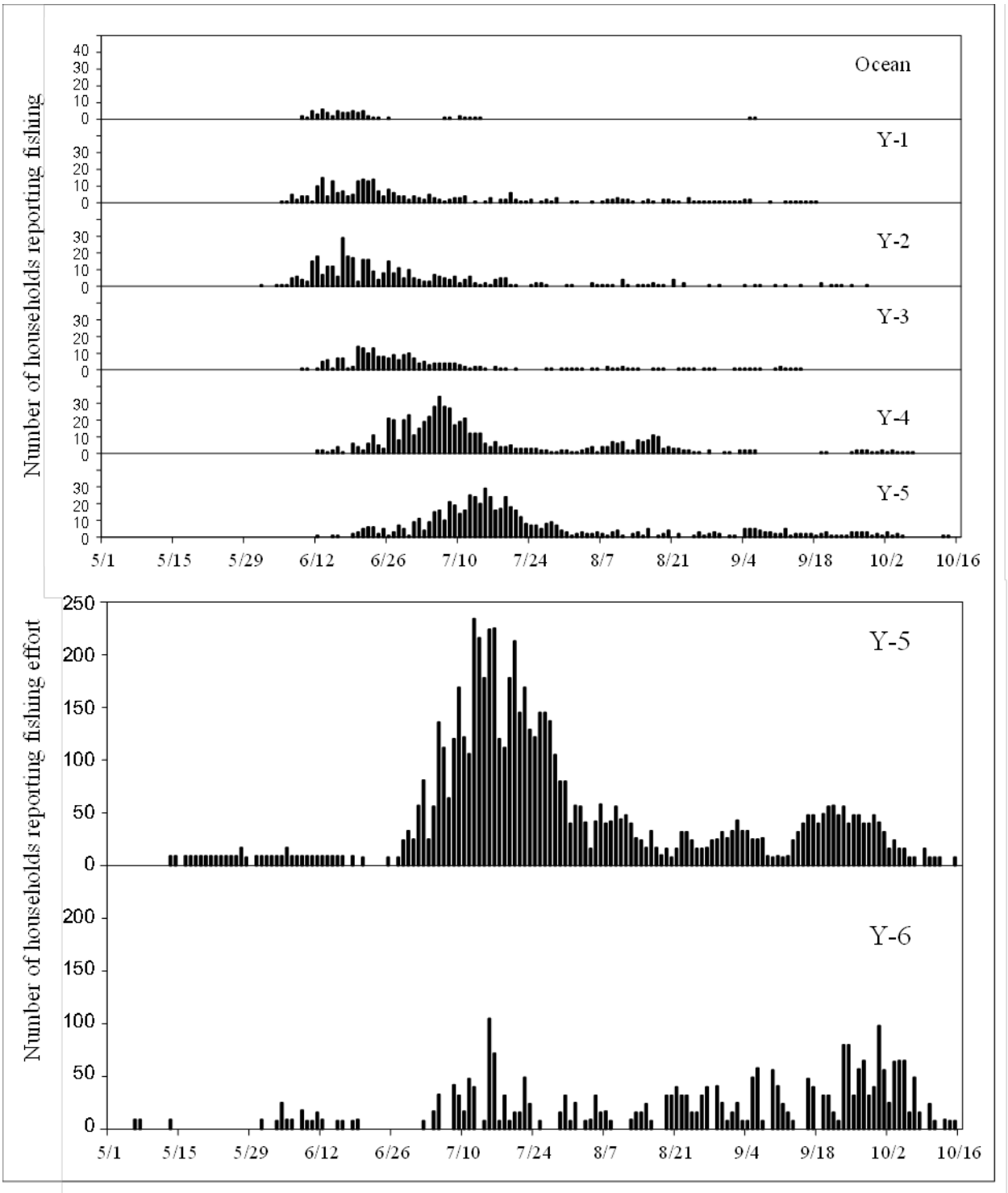
Note: Harvest of salmon species by number (upper panel) and proportion (lower panel). Totals include survey, permit, test fish and retained from commercial. Does not include salmon caught in the personal use fishery, or summer chum, fall chum, and coho salmon carcasses retained from the commercial fishery and used for subsistence. Does not include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2001 and 2003.

Figure 5.–Estimated total subsistence salmon harvest by species, Yukon Area, 1992–2006.



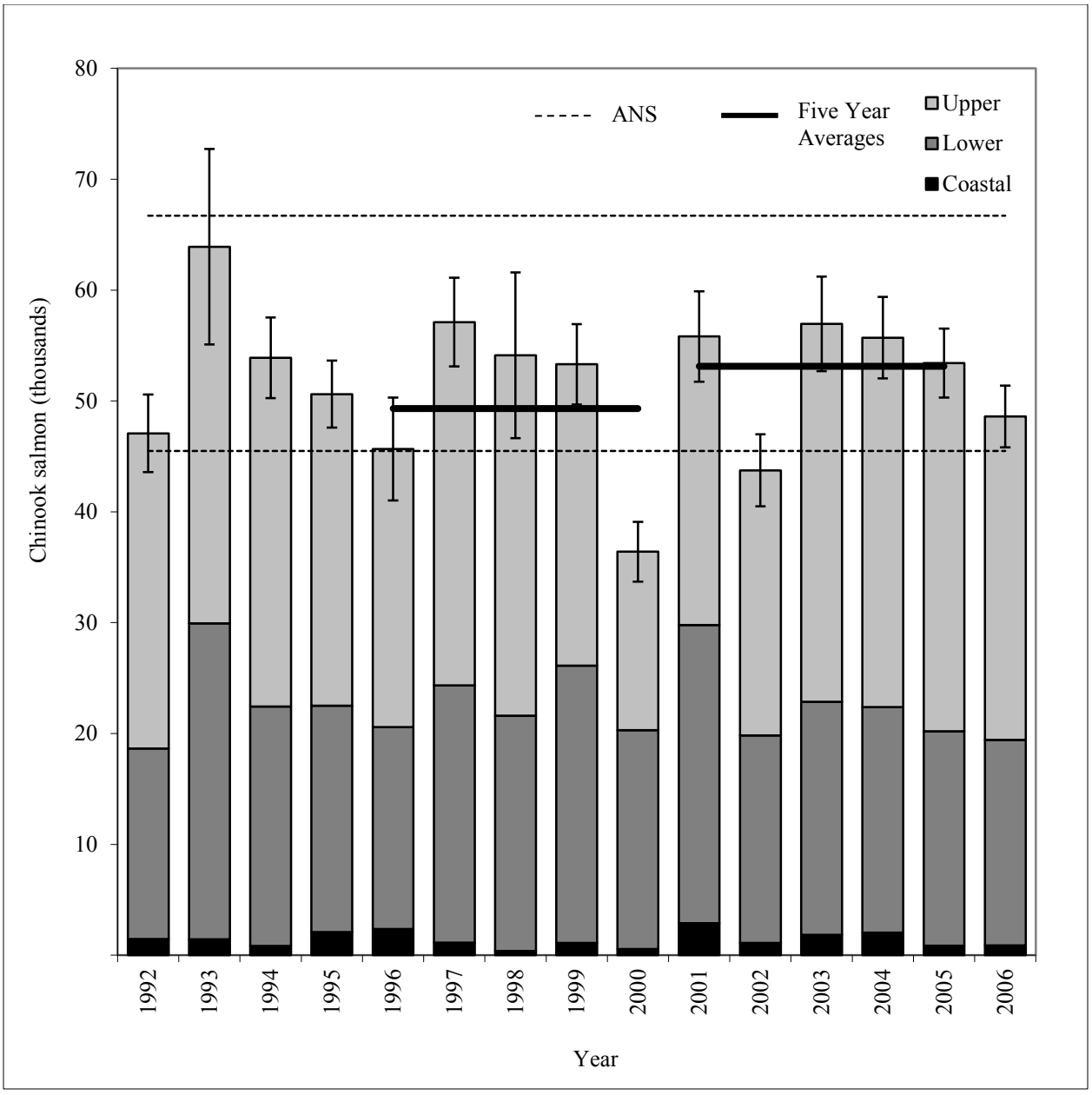
Note: Salmon harvest by number (upper panel) and proportion (lower panel).

Figure 6.–Subsistence salmon harvest reported on catch calendars by species from Districts 1–4 and a portion of District 5, Yukon Area,1990–2006.



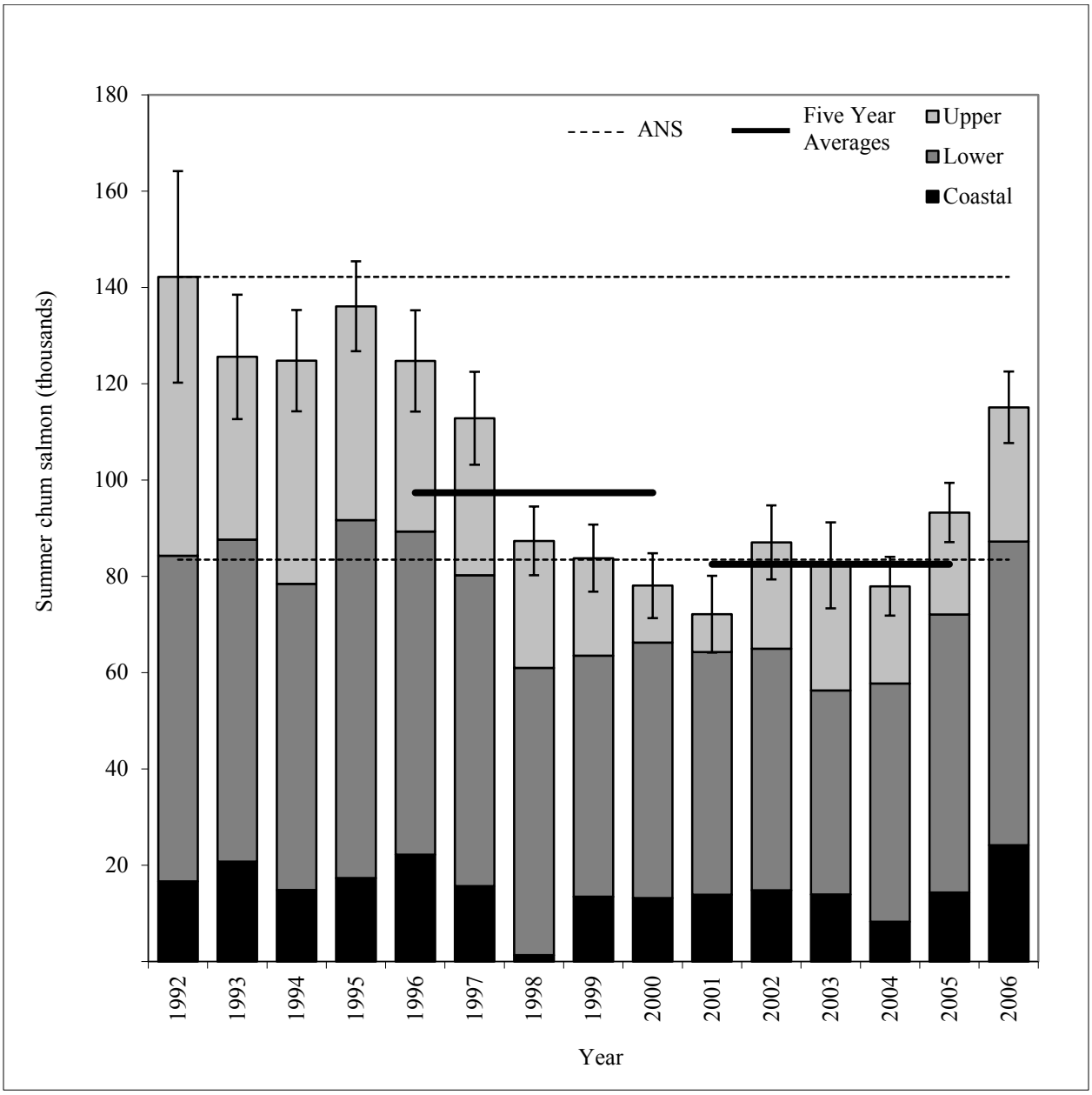
Note: Effort by day as recorded on returned harvest calendars (upper panel), and subsistence salmon permits (lower panel) Yukon Area 2006. District 5 contains calendars from surveyed communities and permit areas.

Figure 7.–Number of households reporting fishing effort by day and by district.



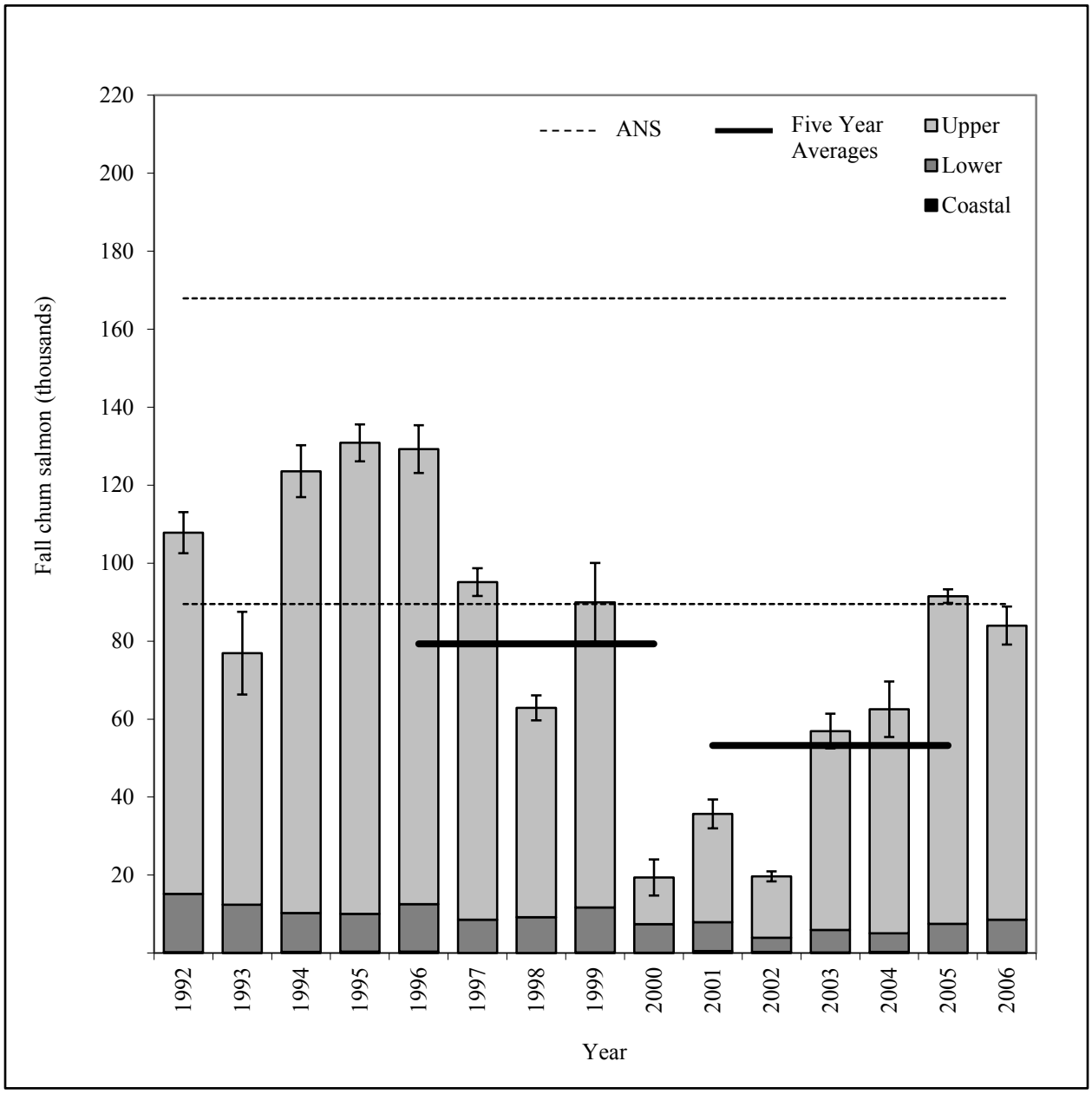
Note: Harvest estimates and 95% confidence interval are provided. In 2001 the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 45,500 to 66,704 Chinook salmon. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 8.–Estimated Chinook salmon subsistence harvest, Yukon Area, 1992–2006.



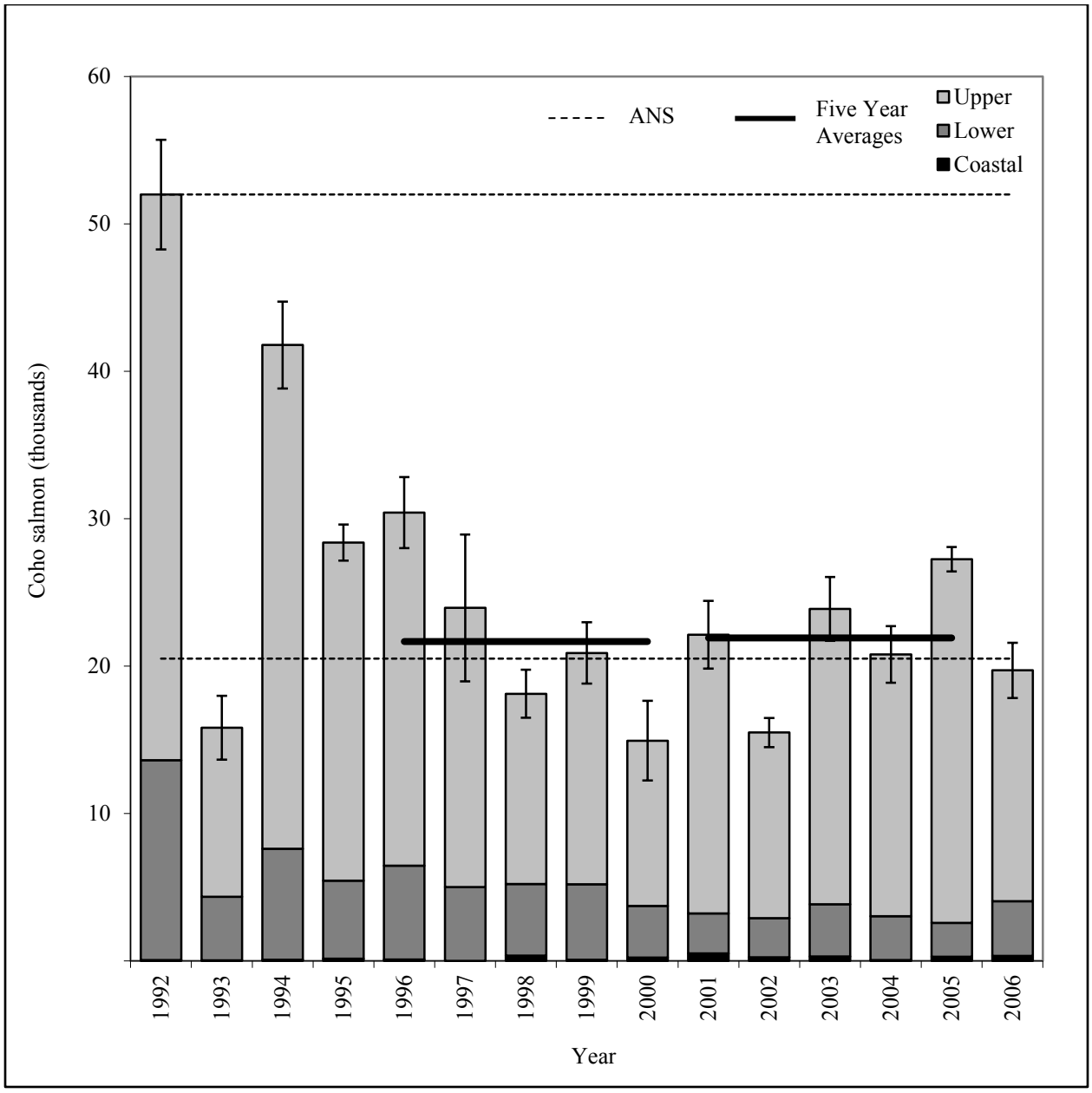
Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 83,500 to 142,192 summer chum salmon. Does not include summer chum salmon carcasses retained from the commercial roe fishery (most significant in 1995 and 1996) and used for subsistence. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 9.–Estimated summer chum salmon subsistence harvest, Yukon Area, 1992–2006.



Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 89,500 to 167,900 fall chum salmon. Does not include fall chum salmon sold commercially for roe and carcasses returned to fishermen in District 6. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 10.–Estimated fall chum salmon subsistence harvest, Yukon Area, 1992–2006.



Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 20,500 to 51,980 coho salmon. Does not include carcasses returned to fishermen from coho salmon sold commercially for roe in District 6. Does not include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2003. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 11.–Estimated coho salmon subsistence harvest, Yukon Area, 1992–2006.

APPENDIX A. 2006 HARVEST INFORMATION

Appendix A1.–Estimated Chinook salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	5.5	0.3	73	18	1.4	0.5	111	31	1.7	0.3	9	8	6.8	1.6	-	-	-	-	196	59	376	105
Scammon Bay	2	0	-	-	23	5	6.4	5.2	40	12	3.5	1.5	13	13	16.9	0.0	-	-	-	-	78	30	507	263
Coastal District	5	2	5.5	0.3	96	23	2.6	1.3	151	43	2.2	0.5	22	21	12.8	0.7	-	-	-	-	274	89	883	283
Nunam Iqua	4	3	3.3	1.7	5	5	0.0	0.0	10	9	4.1	0.5	15	14	21.1	1.9	-	-	-	-	34	31	371	57
Alakanuk	4	1	7.0	-	33	7	2.0	0.8	61	17	2.8	0.8	25	22	12.7	0.9	-	-	-	-	123	47	580	120
Emmonak	18	11	21.5	11.2	53	23	1.2	0.5	61	28	7.4	1.4	31	28	21.3	3.3	-	-	-	-	163	90	1,561	479
Kotlik	17	14	12.3	3.0	25	8	1.8	1.3	36	9	5.9	1.6	20	18	38.9	4.4	-	-	-	-	98	49	1,243	239
District 1	43	29	14.8	4.8	116	43	1.5	0.4	168	63	5.2	0.7	91	82	22.8	1.5	-	-	-	-	418	217	3,755	552
Mountain Village	20	9	5.6	1.9	30	6	0.0	0.0	66	19	12.5	2.5	33	30	21.4	1.1	1	1	17.0	-	150	65	1,659	333
Pitkas Point	4	1	0.0	-	4	4	1.0	0.0	12	11	14.7	1.4	7	6	13.3	2.5	-	-	-	-	27	22	274	47
St. Mary's	25	15	7.1	1.8	16	3	0.0	0.0	54	15	18.3	5.9	29	28	36.9	1.3	-	-	-	-	124	61	2,233	634
Pilot Station	13	4	10.0	8.3	36	14	0.5	0.3	43	16	24.1	7.7	16	15	26.7	1.6	-	-	-	-	108	49	1,610	686
Marshall	7	3	4.7	2.5	21	5	13.6	6.4	33	6	21.7	5.2	13	13	37.1	0.0	1	1	20.0	-	75	28	1,535	429
District 2	69	32	6.5	1.8	107	32	2.9	1.3	208	67	18.0	2.5	98	92	28.4	0.6	2	2	18.5	-	484	225	7,311	1,081
Russian Mission	-	-	-	-	14	4	20.0	10.4	39	11	32.8	7.7	4	4	72.8	0.0	1	1	0.0	-	58	20	1,851	653
Holy Cross	13	5	12.0	7.6	15	6	32.8	13.0	24	9	45.3	12.5	13	12	109.9	4.9	-	-	-	-	65	32	3,165	737
Shageluk	3	1	0.0	-	7	4	6.3	2.5	11	11	10.8	0.0	10	9	17.4	3.0	1	1	21.0	-	32	26	358	68
District 3	16	6	9.8	6.2	36	14	22.7	6.8	74	31	33.6	5.7	27	25	70.2	2.6	2	2	10.5	-	155	78	5,374	987
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	17.2	0.0	7	7	96.0	0.0	1	1	45.0	-	37	32	958	0
Grayling	1	0	-	-	4	1	0.0	-	35	8	40.5	8.6	8	5	35.6	3.5	1	0	-	-	49	14	1,702	594
Kaltag	13	4	37.8	16.8	9	4	6.8	3.5	38	11	47.5	11.9	2	2	237.5	0.0	-	-	-	-	62	21	2,833	985
Nulato	7	4	114.8	46.8	27	9	13.2	6.1	49	14	22.9	4.9	6	5	70.6	10.1	-	-	-	-	89	32	2,707	868
Koyukuk	9	3	0.0	0.0	12	8	7.0	3.3	14	10	43.3	8.0	2	2	49.0	0.0	1	1	47.0	-	38	24	835	233
Galena	19	11	14.4	3.6	72	15	1.9	1.2	56	17	27.3	5.9	6	4	36.0	11.2	2	2	111.5	0.0	155	49	2,380	698
Ruby	3	2	0.0	0.0	34	6	0.0	0.0	10	3	11.7	9.8	3	3	30.0	0.0	3	3	32.3	0.0	53	17	304	191
Huslia	1	1	7.0	-	42	11	0.0	0.0	18	4	11.3	9.9	2	2	15.0	0.0	3	3	6.0	0.0	66	21	258	350
Hughes	3	1	0.0	-	18	14	0.1	0.1	5	4	0.0	0.0	2	2	0.0	0.0	1	1	5.0	-	29	22	8	2
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	0.0	0.0	5	5	1.6	0.0	2	2	7.5	0.0	44	17	23	0
Alatna	6	3	0.0	0.0	4	4	3.5	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	14	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	21.0	5.3	275	94	2.4	0.7	253	90	27.8	2.8	44	37	53.4	2.2	14	13	34.6	0.0	662	268	12,022	1,666

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	22.9	8.4	49	15	2.9	2.2	28	13	33.8	9.8	6	4	94.8	10.0	11	10	173.2	19.2	104	49	3,794	741
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	49.3	20.8	2	2	185.5	0.0	1	1	184.0	-	25	14	1,245	570
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	58.0	-	-	-	-	-	-	-	-	-	8	5	174	0
Beaver	2	2	0.0	0.0	11	10	5.8	1.7	12	10	21.8	2.9	3	3	168.3	0.0	-	-	-	-	28	25	830	77
Fort Yukon	7	4	27.5	18.0	89	20	0.0	0.0	35	8	9.3	5.3	13	10	121.6	17.5	8	6	130.8	30.9	152	48	3,144	793
Venetie	7	1	5.0	-	32	6	17.2	15.5	13	2	0.0	0.0	3	3	4.3	0.0	1	1	70.0	-	56	13	667	971
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	12.7	4.2	209	71	3.6	2.4	109	45	22.0	4.1	29	24	104.8	8.1	21	18	152.7	15.5	405	177	9,854	1,565
Survey Totals	246	122	13.6	2.1	839	277	3.5	0.7	963	339	17.5	1.1	311	281	39.9	1.0	39	35	97.7	8.6	2,398	1,054	39,199	2,784

Note: The number of Chinook salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A2.–Estimated summer chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	87.5	7.2	73	18	93.5	18.2	111	31	99.1	14.6	9	8	153.4	14.7	-	-	-	-	196	59	19,468	4,122
Scammon Bay	2	0	-	-	23	5	42.6	34.9	40	12	47.3	10.5	13	13	140.8	0.0	-	-	-	-	78	30	4,703	1,776
Coastal District	5	2	87.5	7.2	96	23	81.3	16.2	151	43	85.4	11.1	22	21	145.9	6.0	-	-	-	-	274	89	24,171	4,489
Nunam Iqua	4	3	23.3	11.7	5	5	0.0	0.0	10	9	51.9	4.8	15	14	152.7	7.1	-	-	-	-	34	31	2,903	247
Alakanuk	4	1	51.0	-	33	7	21.7	8.9	61	17	51.2	14.8	25	22	137.6	8.0	-	-	-	-	123	47	7,483	1,898
Emmonak	18	11	42.5	8.5	53	23	23.7	10.5	61	28	74.9	10.5	31	28	117.4	5.6	-	-	-	-	163	90	10,226	1,725
Kotlik	17	14	76.9	12.5	25	8	20.1	16.0	36	9	25.1	13.3	20	18	118.2	7.9	-	-	-	-	98	49	5,077	1,327
District 1	43	29	55.1	6.2	116	43	21.3	6.4	168	63	54.2	7.2	91	82	128.9	3.6	-	-	-	-	418	217	25,689	2,898
Mountain Village	20	9	39.4	11.3	30	6	13.5	11.0	66	19	100.1	17.4	33	30	158.3	14.0	1	1	99.0	-	150	65	13,119	2,555
Pitkas Point	4	1	0.0	-	4	4	5.0	0.0	12	11	24.6	4.0	7	6	52.0	9.6	-	-	-	-	27	22	680	162
St. Mary's	25	15	34.3	9.1	16	3	0.0	0.0	54	15	29.4	7.1	29	28	170.7	4.8	-	-	-	-	124	61	7,394	917
Pilot Station	13	4	43.0	34.4	36	14	2.4	1.4	43	16	64.9	16.2	16	15	91.2	4.6	-	-	-	-	108	49	4,895	1,629
Marshall	7	3	28.0	14.1	21	5	34.6	19.7	33	6	66.7	28.0	13	13	67.0	0.0	1	1	160.0	-	75	28	4,154	1,996
District 2	69	32	34.8	8.1	107	32	11.6	5.0	208	67	64.8	8.1	98	92	131.3	5.0	2	2	129.5	-	484	225	30,242	3,746
Russian Mission	-	-	-	-	14	4	26.8	13.1	39	11	14.3	4.2	4	4	74.3	0.0	1	1	100.0	-	58	20	1,328	483
Holy Cross	13	5	5.0	3.2	15	6	5.2	2.7	24	9	15.8	5.6	13	12	23.3	1.8	-	-	-	-	65	32	825	292
Shageluk	3	1	0.0	-	7	4	3.8	2.5	11	11	6.5	0.0	10	9	76.9	11.0	1	1	515.0	-	32	26	1,381	219
District 3	16	6	4.1	2.6	36	14	13.3	5.2	74	31	13.6	2.9	27	25	50.7	4.2	2	2	307.5	-	155	78	3,534	605
Anvik	3	2	1.5	0.9	12	8	0.0	0.0	14	14	2.9	0.0	7	6	13.0	2.6	1	1	250.0	-	37	31	387	37
Grayling	1	0	-	-	4	1	0.0	-	35	7	13.0	5.9	8	5	23.6	11.9	1	0	-	-	49	13	644	443
Kaltag	13	4	0.0	0.0	9	4	0.0	0.0	38	11	2.0	1.0	2	2	41.5	0.0	-	-	-	-	62	21	159	74
Nulato	7	4	13.8	7.9	27	9	0.0	0.0	49	14	3.9	1.8	6	5	91.6	32.6	-	-	-	-	89	32	838	435
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	3.1	0.9	2	2	46.5	0.0	1	1	258.0	-	38	24	394	25
Galena	19	11	0.6	0.3	72	15	0.0	0.0	56	17	9.4	3.8	6	4	3.8	1.5	2	2	321.5	0.0	155	49	1,205	413
Ruby	3	2	0.0	0.0	34	6	0.0	0.0	10	3	5.0	4.2	3	3	313.0	0.0	3	3	241.7	0.0	53	17	1,714	82
Huslia	1	1	292.0	-	42	11	0.0	0.0	18	4	0.0	0.0	2	2	15.0	0.0	3	3	266.7	0.0	66	21	1,122	0
Hughes	3	1	0.0	-	18	14	8.6	4.0	5	4	0.0	0.0	2	2	300.0	0.0	1	1	2500.0	-	29	22	3,254	143
Allakaket	5	2	0.0	0.0	24	6	16.7	14.4	8	2	15.0	13.0	5	5	303.6	0.0	2	2	1566.0	0.0	44	17	5,170	709
Alatna	6	3	0.0	0.0	4	4	7.5	0.0	2	1	40.0	-	1	0	-	-	-	-	-	-	13	8	110	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	5.4	0.7	275	94	2.1	1.3	253	89	6.3	1.3	44	36	95.7	5.1	14	13	639.1	0.0	662	266	14,997	1,046

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	4.3	2.3	49	15	0.0	0.0	28	13	106.6	56.2	6	4	22.5	11.3	11	10	210.1	21.5	104	49	5,474	3,120
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	55.0	34.4	2	2	67.5	0.0	1	1	67.0	-	25	14	972	945
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	10.0	-	-	-	-	-	-	-	-	-	8	5	30	0
Beaver	2	2	0.0	0.0	11	10	0.5	0.2	12	10	1.4	0.4	3	3	31.7	0.0	-	-	-	-	28	25	117	10
Fort Yukon	7	4	12.5	8.2	89	20	0.0	0.0	35	8	6.3	5.5	13	10	48.6	8.4	8	6	153.3	34.7	152	48	2,165	704
Venetie	7	1	0.0	-	32	6	0.0	0.0	13	2	0.0	0.0	3	3	25.0	0.0	1	1	400.0	-	56	13	475	0
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	3.6	1.7	209	71	0.0	0.0	109	45	36.9	15.2	29	24	37.0	4.4	21	18	190.7	17.4	405	177	9,233	3,335
Survey Totals	246	122	23.3	2.6	839	277	15.0	2.2	963	338	43.7	3.3	311	280	110.9	2.2	39	35	347.0	9.6	2,398	1,052	107,866	7,427

Note: The number of summer chum salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A3.–Estimated fall chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	0.0	0.0	73	18	0.6	0.4	111	31	0.7	0.3	9	8	2.5	0.8	-	-	-	-	196	59	146	99
Scammon Bay	2	0	-	-	23	5	0.0	0.0	40	12	0.7	0.6	13	13	1.1	0.0	-	-	-	-	78	30	41	44
Coastal District	5	2	0.0	0.0	96	23	0.5	0.3	151	43	0.7	0.3	22	21	1.7	0.3	-	-	-	-	274	89	187	109
Nunam Iqua	4	3	0.0	0.0	5	5	0.0	0.0	10	9	4.7	1.5	15	14	45.9	5.4	-	-	-	-	34	31	735	160
Alakanuk	4	1	8.0	-	33	7	0.0	0.0	61	17	3.5	1.9	25	22	10.9	1.7	-	-	-	-	123	47	519	240
Emmonak	18	11	0.9	0.5	53	23	3.6	2.7	61	28	5.7	1.9	31	28	26.0	3.6	-	-	-	-	163	90	1,358	423
Kotlik	17	14	2.8	0.9	25	8	0.4	0.3	36	9	3.9	2.1	20	18	10.7	1.8	-	-	-	-	98	49	410	168
District 1	43	29	2.2	0.4	116	43	1.7	1.2	168	63	4.5	1.1	91	82	21.7	1.6	-	-	-	-	418	217	3,022	539
Mountain Village	20	9	16.8	12.4	30	6	0.0	0.0	66	19	4.3	2.4	33	30	33.3	9.2	1	1	59.0	-	150	65	1,777	829
Pitkas Point	4	1	0.0	-	4	4	0.0	0.0	12	11	0.5	0.1	7	6	0.0	0.0	-	-	-	-	27	22	5	3
St. Mary's	25	15	0.1	0.1	16	3	0.0	0.0	54	15	0.4	0.3	29	28	13.5	1.0	-	-	-	-	124	61	417	65
Pilot Station	13	4	0.0	0.0	36	14	0.0	0.0	43	16	2.5	1.7	16	15	0.9	0.1	-	-	-	-	108	49	121	146
Marshall	7	3	0.0	0.0	21	5	0.0	0.0	33	6	0.3	0.3	13	13	11.5	0.0	1	1	250.0	-	75	28	410	20
District 2	69	32	4.9	3.6	107	32	0.0	0.0	208	67	2.1	0.9	98	92	16.9	3.1	2	2	154.5	-	484	225	2,730	844
Russian Mission	-	-	-	-	14	4	0.0	0.0	39	11	3.7	2.7	4	4	1.5	0.0	1	1	100.0	-	58	20	251	204
Holy Cross	13	5	0.0	0.0	15	6	0.0	0.0	24	9	7.4	4.5	13	12	3.5	0.7	-	-	-	-	65	32	224	210
Shageluk	3	1	0.0	-	7	4	0.0	0.0	11	11	0.5	0.0	10	9	0.0	0.0	1	1	0.0	-	32	26	5	0
District 3	16	6	0.0	0.0	36	14	0.0	0.0	74	31	4.4	2.0	27	25	1.9	0.3	2	2	50.0	-	155	78	480	293
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	0.6	0.0	7	7	15.7	0.0	1	1	0.0	-	37	32	118	0
Grayling	1	0	-	-	4	1	0.0	-	35	7	10.3	5.0	8	5	41.4	24.3	1	0	-	-	49	13	691	514
Kaltag	13	4	1.3	1.0	9	4	0.0	0.0	38	11	3.5	2.3	2	2	0.0	0.0	-	-	-	-	62	21	151	172
Nulato	7	4	65.3	30.9	27	9	1.1	0.9	49	14	3.9	2.0	6	5	12.6	2.2	-	-	-	-	89	32	751	469
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	24.0	10.6	2	2	50.0	0.0	1	1	711.0	-	38	24	1,147	290
Galena	19	11	6.3	3.5	72	15	0.0	0.0	56	17	16.0	5.6	6	4	21.5	7.2	2	2	244.0	0.0	155	49	1,632	636
Ruby	3	2	12.5	7.2	34	6	0.0	0.0	10	3	5.0	4.2	3	3	46.3	0.0	3	3	0.0	0.0	53	17	227	92
Huslia	1	1	0.0	-	42	11	0.0	0.0	18	4	11.3	6.3	2	2	15.0	0.0	3	3	26.7	0.0	66	21	313	223
Hughes	3	1	0.0	-	18	14	0.0	0.0	5	4	5.0	1.3	2	2	100.0	0.0	1	1	15.0	-	29	22	240	13
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	0.0	0.0	5	5	19.4	0.0	2	2	148.0	0.0	44	17	393	0
Alatna	6	3	0.0	0.0	4	4	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	0	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	8.4	3.0	275	94	0.1	0.1	253	89	8.7	1.7	44	37	28.2	4.6	14	13	122.3	0.0	662	267	5,663	1,030

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	42.9	23.5	49	15	13.3	11.1	28	13	88.5	38.7	6	4	0.0	0.0	11	10	1782.4	163.5	104	49	23,167	4,277
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	0.0	0.0	2	2	25.0	0.0	1	1	0.0	-	25	14	50	0
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	8	5	0	0
Beaver	2	2	0.0	0.0	11	10	0.0	0.0	12	10	0.0	0.0	3	3	0.0	0.0	-	-	-	-	28	25	0	0
Fort Yukon	7	4	12.5	8.2	89	20	0.0	0.0	35	8	0.0	0.0	13	10	132.5	34.6	8	6	421.0	102.7	152	48	5,178	1,840
Venetie	7	1	0.0	-	32	6	5.0	4.5	13	2	0.0	0.0	3	3	120.0	0.0	1	1	0.0	-	56	13	520	283
Chalkyitsik	10	5	0.0	0.0	16	12	3.8	1.9	4	4	38.8	0.0	2	2	0.0	0.0	-	-	-	-	32	23	215	59
District 5	37	19	14.3	6.7	209	71	4.2	2.7	109	45	24.2	9.9	29	24	73.5	15.5	21	18	1094.0	94.2	405	177	29,130	4,665
Survey Totals	246	122	6.5	1.7	839	277	1.4	0.7	963	338	6.7	1.2	311	281	22.8	1.9	39	35	657.2	52.0	2,398	1,053	41,212	4,891

Note: The number of fall chum salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A4.–Estimated coho salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	0.0	0.0	73	18	0.8	0.5	111	31	1.1	0.4	9	8	0.0	0.0	-	-	-	-	196	59	175	109
Scammon Bay	2	0	-	-	23	5	0.6	0.5	40	12	0.7	0.4	13	13	9.2	0.0	-	-	-	-	78	30	160	39
Coastal District	5	2	0.0	0.0	96	23	0.7	0.4	151	43	1.0	0.3	22	21	5.5	0.0	-	-	-	-	274	89	335	116
Nunam Iqua	4	3	0.0	0.0	5	5	0.0	0.0	10	9	0.1	0.0	15	14	26.1	4.3	-	-	-	-	34	31	392	127
Alakanuk	4	1	0.0	-	33	7	0.7	0.4	61	17	0.0	0.0	25	22	2.1	0.3	-	-	-	-	123	47	76	31
Emmonak	18	11	2.8	1.2	53	23	0.3	0.2	61	28	2.3	0.6	31	28	4.0	0.7	-	-	-	-	163	90	331	95
Kotlik	17	14	0.4	0.2	25	8	0.0	0.0	36	9	2.7	1.0	20	18	6.6	1.3	-	-	-	-	98	49	234	86
District 1	43	29	1.3	0.5	116	43	0.3	0.1	168	63	1.4	0.3	91	82	7.7	0.8	-	-	-	-	418	217	1,033	183
Mountain Village	20	9	16.9	12.3	30	6	0.3	0.3	66	19	1.4	0.6	33	30	30.4	8.5	1	1	207.0	-	150	65	1,652	738
Pitkas Point	4	1	0.0	-	4	4	0.0	0.0	12	11	1.4	0.4	7	6	0.0	0.0	-	-	-	-	27	22	16	9
St. Mary's	25	15	0.0	0.0	16	3	0.0	0.0	54	15	1.3	1.1	29	28	3.4	0.5	-	-	-	-	124	61	171	124
Pilot Station	13	4	0.0	0.0	36	14	0.0	0.0	43	16	0.3	0.2	16	15	1.3	0.2	-	-	-	-	108	49	32	18
Marshall	7	3	3.0	2.3	21	5	0.0	0.0	33	6	0.0	0.0	13	13	7.7	0.0	1	1	70.0	-	75	28	191	31
District 2	69	32	5.2	3.6	107	32	0.1	0.1	208	67	0.9	0.3	98	92	12.5	2.9	2	2	138.5	-	484	225	2,062	749
Russian Mission	-	-	-	-	14	4	0.0	0.0	39	11	0.3	0.2	4	4	2.0	0.0	1	1	0.0	-	58	20	19	18
Holy Cross	13	5	1.2	0.9	15	6	0.0	0.0	24	9	0.0	0.0	13	12	0.0	0.0	-	-	-	-	65	32	16	24
Shageluk	3	1	0.0	-	7	4	1.8	1.1	11	11	3.3	0.0	10	9	0.0	0.0	1	1	0.0	-	32	26	48	16
District 3	16	6	1.0	0.8	36	14	0.3	0.2	74	31	0.6	0.1	27	25	0.3	0.0	2	2	0.0	-	155	78	83	34
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	0.0	0.0	7	6	0.0	0.0	1	1	0.0	-	37	31	0	0
Grayling	1	0	-	-	4	1	0.0	-	35	7	3.3	2.5	8	5	13.6	5.0	1	0	-	-	49	13	224	190
Kaltag	13	4	0.0	0.0	9	4	0.0	0.0	38	11	1.8	1.5	2	2	0.0	0.0	-	-	-	-	62	21	69	114
Nulato	7	4	0.0	0.0	27	9	0.0	0.0	49	14	0.4	0.3	6	5	32.8	13.4	-	-	-	-	89	32	214	160
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	6.4	2.5	2	2	20.0	0.0	1	1	200.0	-	38	24	330	68
Galena	19	11	0.0	0.0	72	15	0.0	0.0	56	17	1.6	0.9	6	4	2.3	1.3	2	2	17.5	0.0	155	49	137	101
Ruby	3	2	3.5	2.0	34	6	0.0	0.0	10	3	0.0	0.0	3	3	0.0	0.0	3	3	0.0	0.0	53	17	11	12
Huslia	1	1	0.0	-	42	11	0.0	0.0	18	4	0.0	0.0	2	2	2.5	0.0	3	3	33.3	0.0	66	21	105	0
Hughes	3	1	0.0	-	18	14	0.0	0.0	5	4	0.0	0.0	2	2	0.0	0.0	1	1	150.0	-	29	22	150	0
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	1.0	0.9	5	5	0.0	0.0	2	2	8.5	0.0	44	17	25	14
Alatna	6	3	0.0	0.0	4	4	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	0	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	0.1	0.1	275	94	0.0	0.0	253	89	1.5	0.5	44	36	8.5	2.1	14	13	38.6	0.0	662	266	1,265	300

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	42.9	23.5	49	15	0.0	0.0	28	13	4.3	2.4	6	4	0.0	0.0	11	10	279.1	74.6	104	49	3,619	1,678
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	0.0	0.0	2	2	0.0	0.0	1	1	0.0	-	25	14	0	0
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	8	5	0	0
Beaver	2	2	0.0	0.0	11	10	0.0	0.0	12	10	0.0	0.0	3	3	0.0	0.0	-	-	-	-	28	25	0	0
Fort Yukon	7	4	0.0	0.0	89	20	0.0	0.0	35	8	0.0	0.0	13	10	2.7	1.2	8	6	0.0	0.0	152	48	35	30
Venetie	7	1	0.0	-	32	6	0.5	0.5	13	2	0.0	0.0	3	3	2.7	0.0	1	1	0.0	-	56	13	24	28
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	11.9	6.5	209	71	0.1	0.1	109	45	1.1	0.6	29	24	1.5	0.5	21	18	146.2	39.1	405	177	3,678	1,678
Survey Totals	246	122	3.6	1.4	839	277	0.2	0.1	963	338	1.2	0.2	311	280	7.9	1.0	39	35	101.3	21.6	2,398	1,052	8,456	1,875

Note: The number of coho salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A5.–Estimated Chinook salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	4.5	0.9	73	18	1.1	0.4	111	31	1.5	0.3	9	8	6.8	1.6	-	-	-	-	196	59	312	92
Scammon Bay	2	0	-	-	23	5	6.4	5.2	40	12	3.5	1.5	13	13	16.0	0.0	-	-	-	-	78	30	495	263
Coastal District	5	2	4.5	0.9	96	23	2.3	1.3	151	43	2.0	0.5	22	21	12.2	0.7	-	-	-	-	274	89	807	279
Nunam Iqua	4	3	3.3	1.7	5	5	0.0	0.0	10	9	3.8	0.6	15	14	20.6	1.7	-	-	-	-	34	31	360	52
Alakanuk	4	1	7.0	-	33	7	2.0	0.8	61	17	2.8	0.8	25	22	11.4	0.9	-	-	-	-	123	47	548	120
Emmonak	18	11	12.4	5.6	53	23	1.0	0.4	61	28	7.4	1.4	31	28	12.8	1.2	-	-	-	-	163	90	1,121	276
Kotlik	17	14	11.6	3.0	25	8	1.8	1.3	36	9	5.9	1.6	20	18	37.0	4.4	-	-	-	-	98	49	1,194	238
District 1	43	29	10.7	2.6	116	43	1.4	0.4	168	63	5.2	0.7	91	82	19.0	1.1	-	-	-	-	418	217	3,223	387
Mountain Village	20	9	5.0	1.6	30	6	0.0	0.0	66	19	12.2	2.5	33	30	20.9	1.1	1	1	17.0	-	150	65	1,613	332
Pitkas Point	4	1	0.0	-	4	4	1.0	0.0	12	11	14.7	1.4	7	6	11.2	2.3	-	-	-	-	27	22	259	46
St. Mary's	25	15	6.4	1.8	16	3	0.0	0.0	54	15	13.7	4.1	29	28	33.9	1.2	-	-	-	-	124	61	1,883	446
Pilot Station	13	4	10.0	8.3	36	14	0.5	0.3	43	17	21.5	6.9	16	15	21.1	1.3	-	-	-	-	108	50	1,412	620
Marshall	7	3	4.7	2.5	21	5	12.8	5.8	33	6	16.7	5.0	13	13	34.6	0.0	1	1	20.0	-	75	28	1,321	403
District 2	69	32	6.1	1.8	107	32	2.7	1.1	208	68	15.4	2.1	98	92	25.9	0.6	2	2	18.5	-	484	226	6,488	926
Russian Mission	-	-	-	-	14	4	17.0	8.4	39	11	28.9	6.4	4	4	70.3	0.0	1	1	0.0	-	58	20	1,646	540
Holy Cross	13	5	12.0	7.6	15	6	32.8	13.0	24	9	45.1	12.4	13	12	101.0	4.8	-	-	-	-	65	32	3,044	735
Shageluk	3	1	0.0	-	7	4	6.3	2.5	11	11	9.3	0.0	10	9	17.3	3.0	1	1	16.0	-	32	26	335	68
District 3	16	6	9.8	6.2	36	14	21.5	6.3	74	31	31.2	5.3	27	25	65.5	2.6	2	2	8.0	-	155	78	5,025	915
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	16.0	0.0	7	7	88.9	0.0	1	1	45.0	-	37	32	891	0
Grayling	1	0	-	-	4	1	0.0	-	35	8	37.5	7.4	8	5	34.0	3.9	1	0	-	-	49	14	1,585	511
Kaltag	13	4	37.8	16.8	9	4	6.8	3.5	38	11	36.5	8.2	2	2	237.5	0.0	-	-	-	-	62	21	2,415	747
Nulato	7	4	114.5	46.9	27	9	10.4	4.2	49	14	22.6	5.0	6	5	67.0	9.6	-	-	-	-	89	32	2,592	840
Koyukuk	9	3	0.0	0.0	12	8	7.0	3.3	14	10	39.3	7.4	2	2	35.5	0.0	1	1	47.0	-	38	24	752	216
Galena	19	11	13.1	3.3	72	15	1.9	1.2	56	17	25.5	5.9	6	4	36.0	11.2	2	2	106.5	0.0	155	49	2,247	690
Ruby	3	2	0.0	0.0	34	6	0.0	0.0	10	3	11.7	9.8	3	3	26.3	0.0	3	3	16.3	0.0	53	17	245	191
Huslia	1	1	7.0	-	42	11	0.0	0.0	18	4	11.3	9.9	2	2	10.0	0.0	3	3	6.0	0.0	66	21	248	350
Hughes	3	1	0.0	-	18	14	0.1	0.1	5	4	0.0	0.0	2	2	0.0	0.0	1	1	5.0	-	29	22	8	2
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	0.0	0.0	5	5	0.8	0.0	2	2	7.5	0.0	44	17	19	0
Alatna	6	3	0.0	0.0	4	4	2.5	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	10	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	20.6	5.3	275	94	2.1	0.5	253	90	25.0	2.4	44	37	50.3	2.2	14	13	30.2	0.0	662	268	11,012	1,486

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Appendix A5.–Page 2 of 2.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	12.9	4.6	49	15	2.9	2.2	28	13	31.3	9.6	6	4	79.8	8.3	11	10	107.5	16.8	104	49	2,810	687
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	46.7	19.8	2	2	180.5	0.0	1	1	181.0	-	25	14	1,196	542
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	52.0	-	-	-	-	-	-	-	-	-	8	5	156	0
Beaver	2	2	0.0	0.0	11	10	5.8	1.7	12	10	21.6	2.9	3	3	113.0	0.0	-	-	-	-	28	25	662	77
Fort Yukon	7	4	27.5	18.0	89	20	0.0	0.0	35	8	8.8	4.9	13	10	68.9	8.3	8	6	129.8	30.8	152	48	2,433	673
Venetie	7	1	5.0	-	32	6	7.2	6.5	13	2	0.0	0.0	3	3	4.3	0.0	1	1	40.0	-	56	13	317	405
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	9.9	3.7	209	71	2.1	1.1	109	45	20.7	3.9	29	24	72.0	4.1	21	18	116.3	14.6	405	177	7,574	1,178
Survey Totals	246	122	12.2	1.9	839	277	2.9	0.5	963	340	15.9	1.0	311	281	34.0	0.7	39	35	76.0	8.1	2,398	1,055	34,129	2,349

Note: The number of Chinook salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A6.–Estimated summer chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	67.5	4.3	73	18	79.2	18.0	111	31	79.4	14.2	9	8	118.0	14.2	-	-	-	-	196	59	15,852	4,032
Scammon Bay	2	0	-	-	23	5	42.6	34.9	40	12	44.4	9.8	13	13	123.8	0.0	-	-	-	-	78	30	4,366	1,751
Coastal District	5	2	67.5	4.3	96	23	70.4	##	151	43	70.1	10.8	22	21	121.5	5.8	-	-	-	-	274	89	20,218	4,396
Nunam Iqua	4	3	16.7	8.3	5	5	0.0	0.0	10	9	40.2	4.5	15	14	128.2	5.0	-	-	-	-	34	31	2,392	183
Alakanuk	4	1	51.0	-	33	7	21.0	9.1	61	17	50.7	14.7	25	22	124.4	6.5	-	-	-	-	123	47	7,100	1,877
Emmonak	18	11	40.5	8.6	53	23	22.8	10.4	61	28	66.5	8.8	31	28	107.1	5.1	-	-	-	-	163	90	9,315	1,569
Kotlik	17	14	72.9	12.5	25	8	14.9	11.7	36	9	24.0	13.3	20	18	116.3	10.2	-	-	-	-	98	49	4,801	1,243
District 1	43	29	52.1	6.2	116	43	19.6	6.0	168	63	50.1	6.8	91	82	117.4	3.4	-	-	-	-	418	217	23,608	2,750
Mountain Village	20	9	37.2	11.4	30	6	13.2	10.7	66	19	86.6	15.1	33	30	144.3	14.0	1	1	99.0	-	150	65	11,718	2,291
Pitkas Point	4	1	0.0	-	4	4	5.0	0.0	12	11	24.5	4.0	7	6	40.5	7.5	-	-	-	-	27	22	597	139
St. Mary's	25	15	29.9	8.3	16	3	0.0	0.0	54	15	22.5	5.3	29	28	140.0	4.4	-	-	-	-	124	61	6,020	737
Pilot Station	13	4	43.0	34.4	36	14	2.4	1.4	43	17	52.7	13.5	16	15	77.2	4.3	-	-	-	-	108	50	4,145	1,445
Marshall	7	3	28.0	14.1	21	5	32.6	18.1	33	6	66.2	27.9	13	13	64.9	0.0	1	1	160.0	-	75	28	4,068	1,963
District 2	69	32	32.6	8.0	107	32	11.1	4.7	208	68	56.1	7.2	98	92	114.1	5.0	2	2	129.5	-	484	226	26,548	3,428
Russian Mission	-	-	-	-	14	4	23.5	11.8	39	11	11.6	3.2	4	4	74.3	0.0	1	1	100.0	-	58	20	1,180	406
Holy Cross	13	5	5.0	3.2	15	6	5.2	2.7	24	9	15.2	5.4	13	12	23.3	1.8	-	-	-	-	65	32	811	283
Shageluk	3	1	0.0	-	7	4	3.8	2.5	11	11	5.0	0.0	10	9	73.6	10.3	1	1	515.0	-	32	26	1,332	204
District 3	16	6	4.1	2.6	36	14	12.0	4.7	74	31	11.8	2.4	27	25	49.5	3.9	2	2	307.5	-	155	78	3,323	535
Anvik	3	2	1.5	0.9	12	8	0.0	0.0	14	14	2.6	0.0	7	7	9.0	0.0	1	1	250.0	-	37	32	354	5
Grayling	1	0	-	-	4	1	0.0	-	35	7	13.0	5.9	8	5	18.6	8.9	1	0	-	-	49	13	604	426
Kaltag	13	4	0.0	0.0	9	4	0.0	0.0	38	11	2.0	1.0	2	2	41.5	0.0	-	-	-	-	62	21	159	74
Nulato	7	4	13.8	7.9	27	9	0.0	0.0	49	14	3.9	1.8	6	5	91.6	32.6	-	-	-	-	89	32	838	435
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	3.1	0.9	2	2	46.5	0.0	1	1	258.0	-	38	24	394	25
Galena	19	11	0.6	0.3	72	15	0.0	0.0	56	17	8.5	3.7	6	4	3.8	1.5	2	2	41.5	0.0	155	49	595	407
Ruby	3	2	0.0	0.0	34	6	0.0	0.0	10	3	5.0	4.2	3	3	304.7	0.0	3	3	237.3	0.0	53	17	1,676	82
Huslia	1	1	292.0	-	42	11	0.0	0.0	18	4	0.0	0.0	2	2	5.0	0.0	3	3	258.3	0.0	66	21	1,077	0
Hughes	3	1	0.0	-	18	14	0.0	0.0	5	4	0.0	0.0	2	2	300.0	0.0	1	1	2350.0	-	29	22	2,950	0
Allakaket	5	2	0.0	0.0	24	6	16.7	14.4	8	2	0.0	0.0	5	5	303.6	0.0	2	2	1566.0	0.0	44	17	5,050	679
Alatna	6	3	0.0	0.0	4	4	1.3	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	5	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	5.4	0.7	275	94	1.5	1.3	253	89	5.3	1.2	44	37	93.1	4.8	14	13	581.5	0.0	662	267	13,702	1,005

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	4.3	2.3	49	15	0.0	0.0	28	13	102.8	56.4	6	4	20.3	11.7	11	10	195.1	19.9	104	49	5,188	3,129
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	55.0	34.4	2	2	67.5	0.0	1	1	67.0	-	25	14	972	945
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	10.0	-	-	-	-	-	-	-	-	-	8	5	30	0
Beaver	2	2	0.0	0.0	11	10	0.5	0.2	12	10	1.4	0.4	3	3	19.7	0.0	-	-	-	-	28	25	81	10
Fort Yukon	7	4	12.5	8.2	89	20	0.0	0.0	35	8	0.0	0.0	13	9	53.2	10.2	8	6	120.0	31.5	152	47	1,739	569
Venetie	7	1	0.0	-	32	6	0.0	0.0	13	2	0.0	0.0	3	3	10.0	0.0	1	1	400.0	-	56	13	430	0
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	3.6	1.7	209	71	0.0	0.0	109	45	33.9	15.1	29	23	35.8	5.2	21	18	170.1	15.9	405	176	8,440	3,317
Survey Totals	246	122	21.9	2.6	839	277	13.2	2.1	963	339	38.0	3.1	311	280	99.7	2.1	39	35	316.0	8.8	2,398	1,053	95,839	7,137

Note: The number of summer chum salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A7.–Estimated fall chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	0.0	0.0	73	18	0.1	0.1	111	31	0.5	0.3	9	8	2.5	0.8	-	-	-	-	196	59	81	64
Scammon Bay	2	0	-	-	23	5	0.0	0.0	40	12	0.7	0.6	13	13	1.1	0.0	-	-	-	-	78	30	41	44
Coastal District	5	2	0.0	0.0	96	23	0.1	0.1	151	43	0.5	0.3	22	21	1.7	0.3	-	-	-	-	274	89	122	78
Nunam Iqua	4	3	0.0	0.0	5	5	0.0	0.0	10	9	4.7	1.5	15	14	45.5	5.3	-	-	-	-	34	31	729	159
Alakanuk	4	1	8.0	-	33	7	0.0	0.0	61	17	3.5	1.9	25	22	10.6	1.7	-	-	-	-	123	47	512	240
Emmonak	18	11	0.5	0.2	53	23	3.6	2.7	61	28	5.7	1.9	31	28	22.2	3.1	-	-	-	-	163	90	1,234	409
Kotlik	17	14	2.1	0.7	25	8	0.4	0.3	36	9	3.9	2.1	20	18	10.0	1.7	-	-	-	-	98	49	386	164
District 1	43	29	1.8	0.3	116	43	1.7	1.2	168	63	4.5	1.1	91	82	20.2	1.5	-	-	-	-	418	217	2,861	527
Mountain Village	20	9	2.9	2.1	30	6	0.0	0.0	66	19	4.3	2.4	33	30	33.3	9.2	1	1	58.0	-	150	65	1,498	678
Pitkas Point	4	1	0.0	-	4	4	0.0	0.0	12	11	0.5	0.1	7	6	0.0	0.0	-	-	-	-	27	22	5	3
St. Mary's	25	15	0.1	0.1	16	3	0.0	0.0	54	15	0.4	0.3	29	28	13.1	1.0	-	-	-	-	124	61	405	65
Pilot Station	13	4	0.0	0.0	36	14	0.0	0.0	43	17	2.4	1.6	16	15	0.6	0.1	-	-	-	-	108	50	111	135
Marshall	7	3	0.0	0.0	21	5	0.0	0.0	33	6	0.3	0.3	13	13	11.5	0.0	1	1	250.0	-	75	28	410	20
District 2	69	32	0.9	0.6	107	32	0.0	0.0	208	68	2.0	0.8	98	92	16.7	3.1	2	2	154.0	-	484	226	2,429	694
Russian Mission	-	-	-	-	14	4	0.0	0.0	39	11	3.7	2.7	4	4	1.5	0.0	1	1	100.0	-	58	20	251	204
Holy Cross	13	5	0.0	0.0	15	6	0.0	0.0	24	9	6.9	4.4	13	12	3.5	0.7	-	-	-	-	65	32	211	207
Shageluk	3	1	0.0	-	7	4	0.0	0.0	11	11	0.5	0.0	10	9	0.0	0.0	1	1	0.0	-	32	26	5	0
District 3	16	6	0.0	0.0	36	14	0.0	0.0	74	31	4.3	2.0	27	25	1.9	0.3	2	2	50.0	-	155	78	467	291
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	0.6	0.0	7	7	1.4	0.0	1	1	0.0	-	37	32	18	0
Grayling	1	0	-	-	4	1	0.0	-	35	7	9.4	5.2	8	5	41.2	24.3	1	0	-	-	49	13	660	522
Kaltag	13	4	1.3	1.0	9	4	0.0	0.0	38	11	1.5	0.7	2	2	0.0	0.0	-	-	-	-	62	21	75	59
Nulato	7	4	65.3	30.9	27	9	0.6	0.5	49	14	3.1	1.5	6	5	12.6	2.2	-	-	-	-	89	32	701	450
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	24.0	10.6	2	2	46.5	0.0	1	1	711.0	-	38	24	1,140	290
Galena	19	11	6.3	3.5	72	15	0.0	0.0	56	17	12.5	4.5	6	4	17.8	6.0	2	2	129.0	0.0	155	49	1,185	516
Ruby	3	2	12.5	7.2	34	6	0.0	0.0	10	3	5.0	4.2	3	3	46.3	0.0	3	3	0.0	0.0	53	17	227	92
Huslia	1	1	0.0	-	42	11	0.0	0.0	18	4	10.8	6.0	2	2	5.0	0.0	3	3	18.3	0.0	66	21	259	210
Hughes	3	1	0.0	-	18	14	0.0	0.0	5	4	5.0	1.3	2	2	100.0	0.0	1	1	15.0	-	29	22	240	13
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	0.0	0.0	5	5	19.4	0.0	2	2	143.0	0.0	44	17	383	0
Alatna	6	3	0.0	0.0	4	4	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	0	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	8.4	3.0	275	94	0.1	0.0	253	89	7.3	1.5	44	37	24.7	4.6	14	13	101.9	0.0	662	267	4,888	939

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	42.9	23.5	49	15	13.3	11.1	28	13	88.5	38.7	6	4	0.0	0.0	11	10	1,768.3	163.0	104	49	23,012	4,268
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	0.0	0.0	2	2	25.0	0.0	1	1	0.0	-	25	14	50	0
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	8	5	0	0
Beaver	2	2	0.0	0.0	11	10	0.0	0.0	12	10	0.0	0.0	3	3	0.0	0.0	-	-	-	-	28	25	0	0
Fort Yukon	7	4	12.5	8.2	89	20	0.0	0.0	35	8	0.0	0.0	13	9	69.4	26.5	8	6	421.0	102.7	152	47	4,358	1,750
Venetie	7	1	0.0	-	32	6	0.0	0.0	13	2	0.0	0.0	3	3	86.7	0.0	1	1	0.0	-	56	13	260	0
Chalkyitsik	10	5	0.0	0.0	16	12	3.8	1.9	4	4	25.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	160	59
District 5	37	19	14.3	6.7	209	71	3.4	2.6	109	45	23.7	9.9	29	23	41.8	11.9	21	18	1,086.6	93.9	405	176	27,840	4,613
Survey Totals	246	122	5.3	1.4	839	277	1.1	0.7	963	339	6.2	1.2	311	280	18.8	1.7	39	35	646.1	51.9	2,398	1,053	38,607	4,797

Note: The number of fall chum salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A8.–Estimated coho salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2006.

	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	3	2	0.0	0.0	73	18	0.3	0.2	111	31	0.8	0.3	9	8	0.0	0.0	-	-	-	-	196	59	110	80
Scammon Bay	2	0	-	-	23	5	0.6	0.5	40	12	0.7	0.4	13	13	9.2	0.0	-	-	-	-	78	30	160	39
Coastal District	5	2	0.0	0.0	96	23	0.4	0.2	151	43	0.8	0.3	22	21	5.5	0.0	-	-	-	-	274	89	270	89
Nunam Iqua	4	3	0.0	0.0	5	5	0.0	0.0	10	9	0.1	0.0	15	14	25.6	4.3	-	-	-	-	34	31	385	126
Alakanuk	4	1	0.0	-	33	7	0.7	0.4	61	17	0.0	0.0	25	22	2.1	0.3	-	-	-	-	123	47	76	31
Emmonak	18	11	2.1	0.9	53	23	0.3	0.2	61	28	2.3	0.6	31	28	3.5	0.6	-	-	-	-	163	90	301	90
Kotlik	17	14	0.4	0.2	25	8	0.0	0.0	36	9	2.7	1.0	20	18	6.6	1.3	-	-	-	-	98	49	233	86
District 1	43	29	1.0	0.4	116	43	0.3	0.1	168	63	1.4	0.3	91	82	7.4	0.8	-	-	-	-	418	217	995	180
Mountain Village	20	9	3.0	2.0	30	6	0.3	0.3	66	19	1.4	0.6	33	30	30.4	8.5	1	1	207.0	-	150	65	1,374	563
Pitkas Point	4	1	0.0	-	4	4	0.0	0.0	12	11	1.4	0.4	7	6	0.0	0.0	-	-	-	-	27	22	16	9
St. Mary's	25	15	0.0	0.0	16	3	0.0	0.0	54	15	1.3	1.1	29	28	3.3	0.5	-	-	-	-	124	61	166	124
Pilot Station	13	4	0.0	0.0	36	14	0.0	0.0	43	17	0.2	0.2	16	15	0.3	0.1	-	-	-	-	108	50	15	16
Marshall	7	3	3.0	2.3	21	5	0.0	0.0	33	6	0.0	0.0	13	13	7.7	0.0	1	1	70.0	-	75	28	191	31
District 2	69	32	1.2	0.6	107	32	0.1	0.1	208	68	0.9	0.3	98	92	12.3	2.9	2	2	138.5	-	484	226	1,762	578
Russian Mission	-	-	-	-	14	4	0.0	0.0	39	11	0.3	0.2	4	4	2.0	0.0	1	1	0.0	-	58	20	19	18
Holy Cross	13	5	1.2	0.9	15	6	0.0	0.0	24	9	0.0	0.0	13	12	0.0	0.0	-	-	-	-	65	32	16	24
Shageluk	3	1	0.0	-	7	4	0.0	0.0	11	11	3.3	0.0	10	9	0.0	0.0	1	1	0.0	-	32	26	36	0
District 3	16	6	1.0	0.8	36	14	0.0	0.0	74	31	0.6	0.1	27	25	0.3	0.0	2	2	0.0	-	155	78	71	30
Anvik	3	2	0.0	0.0	12	8	0.0	0.0	14	14	0.0	0.0	7	7	0.0	0.0	1	1	0.0	-	37	32	0	0
Grayling	1	0	-	-	4	1	0.0	-	35	7	0.3	0.3	8	5	12.4	4.8	1	0	-	-	49	13	109	77
Kaltag	13	4	0.0	0.0	9	4	0.0	0.0	38	11	1.8	1.5	2	2	0.0	0.0	-	-	-	-	62	21	69	114
Nulato	7	4	0.0	0.0	27	9	0.0	0.0	49	14	0.4	0.3	6	5	32.8	13.4	-	-	-	-	89	32	214	160
Koyukuk	9	3	0.0	0.0	12	8	0.0	0.0	14	10	6.4	2.5	2	2	20.0	0.0	1	1	200.0	-	38	24	330	68
Galena	19	11	0.0	0.0	72	15	0.0	0.0	56	17	1.6	0.9	6	4	2.3	1.3	2	2	17.5	0.0	155	49	137	101
Ruby	3	2	3.5	2.0	34	6	0.0	0.0	10	3	0.0	0.0	3	3	0.0	0.0	3	3	0.0	0.0	53	17	11	12
Huslia	1	1	0.0	-	42	11	0.0	0.0	18	4	0.0	0.0	2	2	2.5	0.0	3	3	33.3	0.0	66	21	105	0
Hughes	3	1	0.0	-	18	14	0.0	0.0	5	4	0.0	0.0	2	2	0.0	0.0	1	1	150.0	-	29	22	150	0
Allakaket	5	2	0.0	0.0	24	6	0.0	0.0	8	2	1.0	0.9	5	5	0.0	0.0	2	2	8.5	0.0	44	17	25	14
Alatna	6	3	0.0	0.0	4	4	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	13	8	0	0
Bettles	6	1	0.0	-	17	8	0.0	0.0	4	2	0.0	0.0	-	-	-	-	-	-	-	-	27	11	0	0
District 4	76	34	0.1	0.1	275	94	0.0	0.0	253	89	1.1	0.3	44	37	8.2	2.1	14	13	38.6	0.0	662	267	1,150	245

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	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined Total		Est	CI
Community	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	10	7	42.9	23.5	49	15	0.0	0.0	28	13	4.3	2.4	6	4	0.0	0.0	11	10	273.7	74.8	104	49	3,560	1,681
Stevens Village	1	0	-	-	7	4	0.0	0.0	14	7	0.0	0.0	2	2	0.0	0.0	1	1	0.0	-	25	14	0	0
Birch Creek	-	-	-	-	5	4	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	8	5	0	0
Beaver	2	2	0.0	0.0	11	10	0.0	0.0	12	10	0.0	0.0	3	3	0.0	0.0	-	-	-	-	28	25	0	0
Fort Yukon	7	4	0.0	0.0	89	20	0.0	0.0	35	8	0.0	0.0	13	9	3.0	1.5	8	6	0.0	0.0	152	47	39	39
Venetie	7	1	0.0	-	32	6	0.5	0.5	13	2	0.0	0.0	3	3	0.0	0.0	1	1	0.0	-	56	13	16	28
Chalkyitsik	10	5	0.0	0.0	16	12	0.0	0.0	4	4	0.0	0.0	2	2	0.0	0.0	-	-	-	-	32	23	0	0
District 5	37	19	11.9	6.5	209	71	0.1	0.1	109	45	1.1	0.6	29	23	1.3	0.7	21	18	143.4	39.2	405	176	3,615	1,682
Survey Totals	246	122	2.4	1.0	839	277	0.1	0.0	963	339	1.0	0.2	311	280	7.7	1.0	39	35	99.7	21.6	2,398	1,053	7,863	1,807

Note: The number of coho salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A9.–Estimated number of salmon given away by subsistence fishermen to other subsistence households and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
Community	Total Households	Households Contacted [a]	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	58	8	14	745	368	0	0	0	0	753
Scammon Bay	78	26	15	6	46	80	0	0	0	0	61
Coastal District	274	84	23	15	791	377	0	0	0	0	814
Nunam Iqua	34	30	13	2	300	76	0	0	0	0	313
Alakanuk	123	46	33	22	255	162	7	12	0	0	295
Emmonak	163	89	25	23	304	299	12	12	9	13	350
Kotlik	98	49	24	26	134	54	23	21	11	9	192
District 1	418	214	95	42	993	352	42	27	20	15	1,150
Mountain Village	150	59	21	34	800	808	0	0	0	0	821
Pitkas Point	27	20	20	16	316	134	0	0	0	0	336
St. Mary's	124	58	45	60	1,264	1,312	0	0	0	0	1,309
Pilot Station	108	48	24	18	418	363	0	0	0	0	442
Marshall	75	26	32	56	195	81	0	0	0	0	227
District 2	484	211	142	92	2,993	1,591	0	0	0	0	3,135
Russian Mission	58	18	16	14	117	201	0	0	0	0	133
Holy Cross	65	33	71	85	0	0	0	0	0	0	71
Shageluk	32	25	33	16	113	99	0	0	5	0	151
District 3	155	76	120	88	230	224	0	0	5	0	355
Anvik	37	32	18	3	24	9	112	0	1	0	155
Grayling	49	13	40	0	0	0	0	0	0	0	40
Kaltag	62	21	38	33	0	0	17	29	0	0	55
Nulato	89	32	154	131	42	70	61	52	0	0	257
Koyukuk	38	24	122	55	0	0	52	46	0	0	174
Galena	155	47	559	554	97	128	198	156	5	8	859
Ruby	53	17	193	124	168	92	0	0	0	0	361
Huslia	66	21	90	74	8	13	40	0	0	0	138
Hughes	29	22	3	2	250	0	1	1	0	0	254
Allakaket	44	17	51	61	299	471	80	136	5	0	435
Alatna	13	8	39	28	4	0	4	0	0	0	47
Bettles	27	11	9	9	0	0	0	0	11	15	20
District 4	662	265	1,316	594	892	502	565	220	22	17	2,795

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Community	Total Households	Households Contacted [a]	Chinook Salmon Estimated Total	Chinook Salmon CI 95%	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon Estimated Total
Tanana	104	47	132	66	165	98	189	269	165	98	651
Stevens Village	25	14	44	49	0	0	0	0	0	0	44
Birch Creek	8	5	7	4	0	0	0	0	0	0	7
Beaver	28	24	68	39	0	0	0	0	0	0	68
Fort Yukon	152	46	798	758	0	0	294	300	0	0	1,092
Venetie	56	13	48	35	0	0	0	0	0	0	48
Chalkyitsik	32	23	36	15	20	0	0	0	5	5	61
District 5	405	172	1,133	765	185	98	483	403	170	98	1,971
Survey Totals	2,398	1,022	2,829	978	6,084	1,763	1,090	460	217	100	10,220

[a] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A10.–Estimated number of salmon given away by commercial fishermen to subsistence households and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2006.

Community	Total Households	Households Contacted [a]	Chinook Salmon Estimated Total	Chinook Salmon CI 95%	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon Estimated Total
Hooper Bay [b]	196	58	0	0	0	0	0	0	210	124	210
Scammon Bay	78	29	0	0	0	0	0	0	0	0	0
Coastal District	274	87	0	0	0	0	0	0	210	124	210
Nunam Iqua	34	30	0	0	0	0	0	0	0	0	0
Alakanuk	123	46	0	0	0	0	0	0	0	0	0
Emmonak	163	89	15	17	207	298	0	0	0	0	222
Kotlik	98	49	0	0	0	0	0	0	5	4	5
District 1	418	214	15	17	207	298	0	0	5	4	227
Mountain Village	150	59	0	0	69	115	0	0	0	0	69
Pitkas Point	27	20	0	0	13	13	0	0	0	0	13
St. Mary's	124	58	0	0	0	0	63	40	11	6	74
Pilot Station	108	48	0	0	0	0	0	0	0	0	0
Marshall	75	27	0	0	0	0	0	0	0	0	0
District 2	484	212	0	0	82	116	63	40	11	6	156
Russian Mission	58	18	0	0	0	0	0	0	0	0	0
Holy Cross	65	33	0	0	0	0	0	0	0	0	0
Shageluk	32	25	0	0	0	0	0	0	0	0	0
District 3	155	76	0	0	0	0	0	0	0	0	0
Anvik	37	32	0	0	0	0	0	0	0	0	0
Grayling	49	13	0	0	0	0	0	0	40	70	40
Kaltag	62	21	0	0	0	0	0	0	0	0	0
Nulato	89	32	0	0	0	0	0	0	0	0	0
Koyukuk	38	24	0	0	0	0	0	0	0	0	0
Galena	155	47	0	0	0	0	0	0	0	0	0
Ruby	53	17	0	0	0	0	0	0	0	0	0
Huslia	66	21	0	0	0	0	0	0	0	0	0
Hughes	29	22	0	0	0	0	0	0	0	0	0
Allakaket	44	17	0	0	0	0	0	0	0	0	0
Alatna	13	8	0	0	0	0	0	0	0	0	0
Bettles	27	11	0	0	0	0	0	0	0	0	0
District 4	662	265	0	0	0	0	0	0	40	70	40

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Community	Total Households	Households Contacted [a]	Chinook Salmon Estimated Total	Chinook Salmon CI 95%	Summer Chum Salmon Estimated Total	Summer Chum Salmon CI 95%	Fall Chum Salmon Estimated Total	Fall Chum Salmon CI 95%	Coho Salmon Estimated Total	Coho Salmon CI 95%	Total Salmon Estimated Total
Tanana	104	47	0	0	0	0	0	0	0	0	0
Stevens Village	25	14	0	0	0	0	0	0	0	0	0
Birch Creek	8	5	0	0	0	0	0	0	0	0	0
Beaver	28	24	0	0	0	0	0	0	0	0	0
Fort Yukon	152	46	0	0	0	0	0	0	0	0	0
Venetie	56	13	0	0	0	0	0	0	0	0	0
Chalkyitsik	32	23	0	0	0	0	0	0	0	0	0
District 5	405	172	0	0	0	0	0	0	0	0	0
Survey Totals	2,398	1,026	15	17	289	320	63	40	266	143	633

[a] The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

[b] May include coho salmon from the Kuskokwim River given to Hooper Bay residents after a large fire in the community destroyed salmon stored for the winter.

Appendix A11.–Estimated number of salmon provided to communities for subsistence use by test fish programs, Yukon Area, 2006.

Yukon River Test Fishery Sites	Community where fish were distributed	Chinook Salmon	Summer Chum Salmon	Fall Chum Salmon	Coho Salmon	Total Salmon
Lower Yukon Test Fish Drift Gillnet (LYTF) [a]	Emmonak	750	1,673	698	119	3,240
	Kotlik	507	212	77	0	796
	Alakanuk	110	307	105	25	547
LYTF Project Subtotal:		1,367	2,192	880	144	4,583
Mountain Village Test Fish Drift Gillnet	Mountain Village	-	-	621	204	825
Pilot Station Sonar Test Fish Drift Gillnet	Pilot Station	366	1,175	664	193	2,398
Marshall Test Fish Drift Gillnet	Marshall	362	238	-	-	600
Kaltag Test Fish Drift Gillnet	Kaltag	-	-	672	37	709
Eagle Sonar Test Fish Gillnet [b]	Eagle	20	0	15	0	35
Nenana Test Fish Wheel	Nenana	38	0	159	389	586
Other Test Fish Subtotal:		786	1,413	2,131	823	5,153
Test Fish Totals		2,153	3,605	3,011	967	9,736

Note: Dashes indicate test fish project was not in operation for that portion of the season.

[a] Includes both set and drift gillnet test fish catches.

[b] Salmon from the Eagle Sonar test fishery given to the permit community of Eagle.

Appendix A12.–Salmon reported lost in surveyed communities due to disease, weather, predators, and unknown causes, Yukon Area, 2006.

Reasons Given For Salmon Lost	Salmon Lost											
	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Pink Salmon		Total Reported Salmon Lost	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
LOST DUE TO SICK FISH												
Ichthyophonus h.	6	2.7%	10	0.6%	0	0.0%	0	0.0%	0	0.0%	16	0.7%
Bad meat, blemishes, worms	35	15.9%	11	0.7%	0	0.0%	0	0.0%	0	0.0%	46	2.1%
Subtotal	41	18.6%	21	1.3%	0	0.0%	0	0.0%	0	0.0%	62	2.9%
LOST DUE TO WEATHER / SPOILAGE												
Rain/Bad Weather	47	21.4%	501	29.9%	35	31.5%	0	0.0%	0	0.0%	583	27.0%
Insects	0	0.0%	20	1.2%	0	0.0%	0	0.0%	0	0.0%	20	0.9%
Subtotal	47	21.4%	521	31.1%	35	31.5%	0	0.0%	0	0.0%	603	28.0%
LOST DUE TO ANIMALS/THEFT												
Bears	0	0.0%	5	0.3%	0	0.0%	0	0.0%	0	0.0%	5	0.2%
Birds	0	0.0%	50	3.0%	0	0.0%	0	0.0%	0	0.0%	50	2.3%
Subtotal	0	0.0%	55	3.3%	0	0.0%	0	0.0%	0	0.0%	55	2.5%
LOST DUE TO FIRE Subtotal	14	6.4%	691	41.2%	17	15.3%	17	58.6%	67	55.4%	806	37.4%
LOST UNKNOWN [a] Subtotal	118	53.6%	388	23.2%	59	53.2%	12	41.4%	54	44.6%	631	29.3%
SALMON REPORTED LOST Total	220	100.0%	1,676	100.0%	111	100.0%	29	100.0%	121	100.0%	1,351	62.6%
USE OF LOST SALMON												
Salmon Fed to Dogs [b]	28	12.7%	322	19.2%	30	27.0%	0	0.0%	0	0.0%	380	17.6%
Salmon Lost to Humans and Dogs [c]	192	87.3%	1,354	80.8%	81	73.0%	29	100.0%	121	100.0%	1,777	82.4%
Total Salmon Lost [d]	220	100.0%	1,676	100.0%	111	100.0%	29	100.0%	121	100.0%	2,157	100.0%

[a] "Lost Unknown" included 20 Chinook salmon confiscated by law enforcement.
[b] Salmon unfit for human consumption, but reported retained for dog food.
[c] Salmon lost and unfit for human consumptions or for dog food.
[d] A total of 119 surveyed households reported losing salmon.

APPENDIX B. HISTORICAL INFORMATION

Appendix B1.–Chinook salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1996–2006.

Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Hooper Bay	1,127	613	13	173	114	2,150	282	722	1,042	157	376	408	871
Scammon Bay	1,238	526	378	938	449	732	840	1,128	996	691	507	706	877
Coastal District Total	2,365	1,139	391	1,111	563	2,882	1,122	1,850	2,038	848	883	1,114	1,748
Nunam Iqua	450	970	527	855	684	550	393	925	647	338	371	697	571
Alakanuk	662	2,058	1,930	1,236	1,109	973	1,773	1,707	1,317	860	690	1,399	1,326
Emmonak	702	3,080	2,396	3,337	2,205	2,473	1,751	2,763	2,768	1,730	2,311	2,344	2,297
Kotlik	1,832	1,442	2,389	1,420	1,893	3,093	1,686	937	1,148	2,130	1,750	1,795	1,799
District 1 Subtotal	3,646	7,550	7,242	6,848	5,891	7,089	5,603	6,332	5,880	5,058	5,122	6,235	5,992
Mountain Village	1,315	2,081	2,533	2,162	1,715	1,864	1,523	2,174	2,362	2,383	1,659	1,961	2,061
Pitkas Point	762	793	817	632	753	651	566	633	609	618	274	751	615
St. Mary's	1,766	2,592	2,679	2,150	1,810	3,815	2,045	1,916	2,357	2,693	2,233	2,199	2,565
Pilot Station	1,811	2,373	1,715	2,715	2,378	2,614	2,530	2,886	2,406	1,658	1,976	2,198	2,419
Marshall	2,126	1,511	1,711	2,780	3,279	4,498	2,290	2,059	1,990	1,804	1,897	2,281	2,528
District 2 Subtotal	7,780	9,350	9,455	10,439	9,935	13,442	8,954	9,668	9,724	9,156	8,039	9,392	10,189
Russian Mission	2,709	1,459	1,314	2,722	1,860	3,428	1,887	2,057	2,337	1,894	1,851	2,013	2,321
Holy Cross	3,953	3,472	2,648	4,581	1,249	2,711	1,813	2,395	1,993	2,817	3,165	3,181	2,346
Shageluk	121	1,380	552	412	805	222	439	550	418	420	358	654	410
District 3 Subtotal	6,783	6,311	4,514	7,715	3,914	6,361	4,139	5,002	4,748	5,131	5,374	5,847	5,076
Lower Yukon River Total	18,209	23,211	21,211	25,002	19,740	26,892	18,696	21,002	20,352	19,345	18,535	21,475	21,257
Anvik	768	951	1,025	776	205	608	708	1,286	1,588	1,206	958	745	1,079
Grayling	1,036	2,391	2,177	2,476	839	1,077	2,249	1,613	1,869	1,878	1,702	1,784	1,737
Kaltag	994	1,036	1,870	2,051	1,074	1,506	1,435	1,838	1,656	3,367	2,833	1,405	1,960
Nulato	1,461	1,576	4,147	1,799	1,083	2,127	1,773	2,531	5,199	2,749	2,707	2,013	2,876
Koyukuk	402	851	800	506	175	449	323	860	400	396	835	547	486
Galena	2,770	2,350	1,668	2,539	788	1,755	1,522	3,112	3,296	2,864	2,380	2,023	2,510
Ruby/Kokrines	557	2,260	3,891	777	1,577	2,033	954	631	1,620	1,193	304	1,812	1,286
District 4 Subtotal (Excluding Koyukuk River)	7,988	11,415	15,578	10,924	5,741	9,555	8,964	11,871	15,628	13,653	11,719	10,329	11,934
Huslia	67	57	23	90	424	377	222	469	285	207	258	132	312
Hughes	54	34	91	105	50	144	67	113	291	33	8	67	130
Allakaket	82	423	85	108	41	76	200	306	65	68	23	148	143
Alatna	2	38	4	10	8	0	3	12	0	0	14	12	3
Bettles	0	39	20	1	0	0	0	0	0	3	0	12	1
Koyukuk River Subtotal	205	591	223	314	523	597	492	900	641	311	303	371	588
District 4 Total	8,193	12,006	15,801	11,238	6,264	10,152	9,456	12,771	16,269	13,964	12,022	10,700	12,522

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Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Tanana	2,741	3,596	5,212	3,388	2,895	4,112	2,379	5,332	2,689	3,729	3,794	3,566	3,648
Rampart [a]	1,751	2,203	885	2,018	847	1,857	852	1,411	287	411	429	1,541	964
Fairbanks [b]	1,166	955	1,231	851	1,342	1,125	1,767	1,932	1,997	2,584	2,184	1,109	1,881
Stevens Village	681	2,070	1,232	1,214	466	1,111	1,334	1,121	2,394	1,570	1,245	1,133	1,506
Birch Creek	0	373	48	24	72	0	67	78	82	131	174	103	72
Beaver	886	1,859	470	473	196	1,368	702	1,156	858	957	830	777	1,008
Fort Yukon	4,957	3,145	1,771	2,539	988	2,361	2,348	4,004	4,430	3,591	3,144	2,680	3,347
Circle	1,781	1,091	685	524	627	447	1,533	895	565	1,283	694	942	945
Central	131	146	170	91	26	84	58	144	83	175	130	113	109
Eagle	1,092	1,534	2,473	2,558	1,087	1,033	1,910	2,081	1,512	2,566	2,303	1,749	1,820
Other [c]	377	763	446	488	205	40	348	862	357	315	330	456	384
District 5 Subtotal (Excluding Chandalar and Black Rivers)	15,563	17,735	14,623	14,168	8,751	13,538	13,298	19,016	15,254	17,312	15,257	14,168	15,684
Venetie	134	314	168	127	103	28	77	125	352	59	667	169	128
Chalkyitsik	30	0	11	35	0	0	26	50	60	53	0	15	38
Chandalar/Black River Subtotal	164	314	179	162	103	28	103	175	412	112	667	184	166
District 5 Total	15,727	18,049	14,802	14,330	8,854	13,566	13,401	19,191	15,666	17,424	15,924	14,352	15,850
Manley	134	242	209	136	58	534	336	213	239	289	361	156	322
Minto	523	1,208	275	317	0	197	19	317	35	35	31	465	121
Nenana	423	1,082	1,187	975	541	1,405	509	1,193	633	533	712	842	855
Fairbanks [d]	97	176	230	195	360	191	159	392	449	971	125	212	432
Other [e]	0	4	18	1	24	0	44	30	32	0	0	9	21
District 6 Tanana R. Total [f]	1,177	2,712	1,919	1,624	983	2,327	1,067	2,145	1,388	1,828	1,229	1,683	1,751
Upper Yukon River Total	25,097	32,767	32,522	27,192	16,101	26,045	23,924	34,107	33,323	33,216	29,175	26,736	30,123
Alaska, Yukon River Total [g]	43,306	55,978	53,733	52,194	35,841	52,937	42,620	55,109	53,675	52,561	47,710	48,210	51,380
Alaska, Yukon Area Total	45,671	57,117	54,124	53,305	36,404	55,819	43,742	56,959	55,713	53,409	48,593	49,324	53,128

[a] Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

[b] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

[c] Other permit holders who fished in District 5 but did not reside in the communities listed.

[d] Harvest of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvest by personal use permit holders.

[e] Other permit holders who fished in District 6 but did not reside in the communities listed.

[f] Does not include harvest by personal use permit holders.

[g] Does not include the Coastal District.

Appendix B2.–Summer chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1996–2006.

Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Hooper Bay	15,870	12,310	261	10,146	9,301	12,593	9,780	10,658	3,242	9,771	19,468	9,578	9,209
Scammon Bay	6,365	3,401	1,101	3,315	3,876	1,323	5,016	3,310	5,020	4,586	4,703	3,612	3,851
Coastal District Total	22,235	15,711	1,362	13,461	13,177	13,916	14,796	13,968	8,262	14,357	24,171	13,189	13,060
Nunam Iqua	2,634	2,603	1,872	1,343	3,309	1,942	1,897	2,561	2,698	2,794	2,903	2,352	2,378
Alakanuk	6,171	7,443	5,643	3,808	6,259	5,992	7,637	5,287	6,555	5,687	7,790	5,865	6,232
Emmonak	6,097	12,399	9,558	10,310	8,338	8,242	8,458	7,644	8,618	12,594	11,899	9,340	9,111
Kotlik	12,387	4,803	9,815	4,708	6,173	6,595	6,115	4,209	2,749	6,620	5,289	7,577	5,258
District 1 Subtotal	27,289	27,248	26,888	20,169	24,079	22,771	24,107	19,701	20,620	27,695	27,881	25,135	22,979
Mountain Village	9,285	11,310	9,596	10,059	7,074	8,484	6,657	6,497	10,676	8,861	13,119	9,465	8,235
Pitkas Point	1,619	747	1,302	849	1,728	862	639	800	717	1,023	680	1,249	808
St. Mary's	6,736	8,874	9,047	6,752	8,094	10,026	7,284	4,521	6,994	6,877	7,394	7,901	7,140
Pilot Station	6,355	4,532	5,042	5,265	5,223	5,329	6,490	4,163	5,779	4,333	6,070	5,283	5,219
Marshall	4,431	1,508	1,293	1,212	3,212	1,602	2,484	792	1,765	3,183	4,392	2,331	1,965
District 2 Subtotal	28,426	26,971	26,280	24,137	25,331	26,303	23,554	16,773	25,931	24,277	31,655	26,229	23,368
Russian Mission	3,554	585	702	616	1,318	165	395	171	884	925	1,328	1,355	508
Holy Cross	1,700	487	269	264	569	460	155	214	276	760	825	658	373
Shageluk	6,114	9,244	5,501	4,868	1,800	684	1,956	5,473	1,798	4,081	1,381	5,505	2,798
District 3 Subtotal	11,368	10,316	6,472	5,748	3,687	1,309	2,506	5,858	2,958	5,766	3,534	7,518	3,679
Lower Yukon River Total	67,083	64,535	59,640	50,054	53,097	50,383	50,167	42,332	49,509	57,738	63,070	58,882	50,026
Anvik	185	6,306	2,139	848	425	94	1,089	844	248	529	387	1,981	561
Grayling	587	2,446	4,032	4,126	474	92	1,311	1,072	1,129	783	644	2,333	877
Kaltag	31	73	175	625	169	10	234	1,028	213	680	159	215	433
Nulato	1,003	115	3,518	1,945	377	208	269	180	198	634	838	1,392	298
Koyukuk	41	739	1,819	197	204	118	426	1,339	329	537	394	600	550
Galena	3,902	4,575	2,333	1,688	820	53	712	289	782	1,013	1,205	2,664	570
Ruby/Kokrines	2,016	3,286	2,251	1,697	1,233	1,025	1,406	876	2,010	967	1,714	2,097	1,257
District 4 Subtotal (Excluding Koyukuk River)	7,765	17,540	16,267	11,126	3,702	1,600	5,447	5,628	4,909	5,143	5,341	11,280	4,545
Huslia	2,372	840	449	1,192	745	833	3,178	6,187	3,844	2,433	1,122	1,120	3,295
Hughes	1,411	1,579	334	577	1,079	551	1,089	1,265	3,823	2,230	3,254	996	1,792
Allakaket	4,668	3,916	901	2,245	1,520	1,604	6,242	4,383	2,367	2,535	5,170	2,650	3,426
Alatna	209	145	13	99	0	0	15	50	16	5	110	93	17
Bettles	0	210	82	100	0	0	0	0	0	4	0	78	1
Koyukuk River Subtotal	8,660	6,690	1,779	4,213	3,344	2,988	10,524	11,885	10,050	7,207	9,656	4,937	8,531
District 4 Total	16,425	24,230	18,046	15,339	7,046	4,588	15,971	17,513	14,959	12,350	14,997	16,217	13,076

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Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Tanana	5,190	2,526	1,966	1,214	2,848	1,407	3,321	3,075	1,490	4,832	5,474	2,749	2,825
Rampart [a]	1,188	738	19	60	47	0	14	9	103	315	135	410	88
Fairbanks [b]	2,958	424	57	346	275	165	295	89	280	780	1,341	812	322
Stevens Village	530	191	171	26	50	0	12	0	108	442	972	194	112
Beaver	572	2	15	91	7	328	77	7	2	68	117	137	96
Fort Yukon [c]	26	134	30	0	0	289	1,832	2,176	1,187	67	2,165	38	1,110
Circle	271	257	1	60	109	6	5	85	52	3	58	140	30
Central	53	25	1	0	1	0	0	0	0	5	2	16	1
Eagle	105	17	52	271	121	555	24	104	171	235	974	113	218
Other [d]	616	130	2	42	51	0	17	0	3	53	117	168	15
District 5 Subtotal (Excluding Chandalar and Black Rivers)	11,509	4,444	2,314	2,110	3,509	2,750	5,597	5,545	3,396	6,800	11,355	4,777	4,818
Venetie	0	76	0	166	0	106	13	0	15	0	475	48	27
Chalkyitsik	0	0	0	0	132	0	0	0	0	0	0	26	0
Chandalar/Black River Subtotal	0	76	0	166	132	106	13	0	15	0	475	75	27
District 5 Total	11,509	4,520	2,314	2,276	3,641	2,856	5,610	5,545	3,411	6,800	11,830	4,852	4,844
Manley	1,219	576	211	272	240	338	93	65	296	163	89	504	191
Minto	1,421	1,056	148	173	3	19	10	625	7	21	460	560	136
Nenana	4,411	1,899	5,041	1,894	775	19	360	2,193	1,171	1,771	388	2,804	1,103
Fairbanks [e]	392	271	604	315	90	36	47	31	308	45	73	334	93
Other [f]	43	22	0	0	3	0	2	0	11	14	0	14	5
District 6 Tanana R. Total [g]	7,486	3,824	6,004	2,654	1,111	412	512	2,914	1,793	2,014	1,010	4,216	1,529
Upper Yukon River Total [g]	35,420	32,574	26,364	20,269	11,798	7,856	22,093	25,972	20,163	21,164	27,837	25,285	19,450
Alaska, Yukon River Total [g, h]	102,503	97,109	86,004	70,323	64,895	58,239	72,260	68,304	69,672	78,902	90,907	84,167	69,475
Alaska, Yukon Area Total [g]	124,738	112,820	87,366	83,784	78,072	72,155	87,056	82,272	77,934	93,259	115,078	97,356	82,535

[a] Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

[b] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

[c] Includes Birch Creek harvest of one summer chum salmon in 1997.

[d] Other permit holders who fished in District 5 but did not reside in the communities listed.

[e] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvests by personal use permit holders.

[f] Other permit holders who fished in District 6 but did not reside in the communities listed.

[g] Does not include harvest by personal use permit holders.

[h] Does not include the Coastal District.

Appendix B3.–Fall chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1996–2006.

Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Hooper Bay	392	0	0	0	78	364	44	40	264	1	146	94	143
Scammon Bay	0	0	34	204	11	195	240	106	56	69	41	50	133
Coastal District Total	392	0	34	204	89	559	284	146	320	70	187	144	276
Nunam Iqua	21	337	266	115	105	176	284	127	49	310	735	169	189
Alakanuk	100	900	665	558	505	1,032	222	348	953	627	624	546	636
Emmonak	1,501	1,039	867	1,849	1,165	1,272	1,261	1,257	785	1,436	2,056	1,284	1,202
Kotlik	2,525	856	1,365	3,980	3,519	957	114	407	280	516	487	2,449	455
District 1 Subtotal	4,147	3,132	3,163	6,502	5,294	3,437	1,881	2,139	2,067	2,889	3,902	4,448	2,483
Mountain Village	1,366	2,698	2,031	1,968	313	470	478	873	918	1,290	2,398	1,675	806
Pitkas Point	603	178	233	53	5	34	16	49	0	6	5	214	21
St. Mary's	658	310	416	722	255	227	103	762	104	490	417	472	337
Pilot Station	448	1,106	1,162	1,155	852	1,522	680	823	1,108	838	785	945	994
Marshall	2,212	388	640	696	0	1,003	341	394	291	633	410	787	532
District 2 Subtotal	5,287	4,680	4,482	4,594	1,425	3,256	1,618	2,901	2,421	3,257	4,015	4,094	2,691
Russian Mission	587	0	137	100	37	76	164	615	172	667	251	172	339
Holy Cross	1,814	420	1,095	239	523	624	0	9	76	582	224	818	258
Shageluk	305	367	329	76	38	0	0	114	50	55	5	223	44
District 3 Subtotal	2,706	787	1,561	415	598	700	164	738	298	1,304	480	1,213	641
Lower Yukon River Total	12,140	8,599	9,206	11,511	7,317	7,393	3,663	5,778	4,786	7,450	8,397	9,755	5,814
Anvik	457	514	388	126	175	29	401	179	398	497	118	332	301
Grayling	1,759	1,531	648	1,370	284	314	52	441	267	1,009	691	1,118	417
Kaltag	1,049	1,142	499	764	190	607	314	725	687	1,089	823	729	684
Nulato	2,299	697	367	2,338	0	151	0	1,341	1,246	421	751	1,140	632
Koyukuk	2,458	1,954	1,583	1,544	239	517	255	835	344	803	1,147	1,556	551
Galena	6,620	3,370	1,915	1,932	564	420	349	1,510	1,587	2,695	1,632	2,880	1,312
Ruby/Kokrines	561	2,195	2,427	907	64	581	78	2,331	1,064	559	227	1,231	923
District 4 Subtotal (Excluding Koyukuk River)	15,203	11,403	7,827	8,981	1,516	2,619	1,449	7,362	5,593	7,073	5,389	8,986	4,819
Huslia	298	10	0	89	35	683	0	1,786	1,139	1,614	313	86	1,044
Hughes	274	51	60	84	157	0	0	497	97	111	240	125	141
Allakaket	961	270	11	20	36	50	100	105	968	557	393	260	356
Alatna	0	0	0	0	15	0	0	0	0	0	0	3	0
Bettles	50	0	0	0	0	0	0	0	0	50	0	10	10
Koyukuk River Subtotal	1,583	331	71	193	243	733	100	2,388	2,204	2,332	946	484	1,551
District 4 Total	16,786	11,734	7,898	9,174	1,759	3,352	1,549	9,750	7,797	9,405	6,335	9,470	6,371

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Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Tanana	21,420	25,058	24,956	22,305	9,384	9,779	6,255	14,308	23,118	20,545	23,167	20,625	14,801
Rampart [a]	896	646	100	4,324	0	183	0	365	0	358	250	1,193	181
Fairbanks [b]	2,727	491	96	681	8	0	0	105	43	1,682	5,269	801	366
Stevens Village	991	1,585	1,076	20	10	20	0	857	1,080	246	50	736	441
Beaver	9	243	409	16	0	21	1	192	48	179	0	135	88
Ft. Yukon	8,144	6,119	3,035	9,702	355	2,209	3,523	7,963	7,302	8,088	5,178	5,471	5,817
Circle	5,308	3,707	37	2,722	0	2,588	74	499	1,022	918	664	2,355	1,020
Central	132	0	0	0	0	0	0	0	0	36	0	26	7
Eagle	14,916	14,488	543	11,292	32	2,714	339	2,871	5,482	17,356	16,801	8,254	5,752
Other [c]	505	421	50	65	1	0	100	0	13	117	44	208	46
District 5 Subtotal (Excluding Chandalar and Black Rivers)	55,048	52,758	30,302	51,127	9,790	17,514	10,292	27,160	38,108	49,525	51,423	39,805	28,520
Venetie	7,195	1,564	658	2,011	130	3,286	680	770	2,083	1,801	520	2,312	1,724
Chalkyitsik	1,230	936	433	442	0	73	4	340	479	337	215	608	247
Chandalar/Black River Subtotal	8,425	2,500	1,091	2,453	130	3,359	684	1,110	2,562	2,138	735	2,920	1,971
District 5 Total	63,473	55,258	31,393	53,580	9,920	20,873	10,976	28,270	40,670	51,663	52,158	42,725	30,490
Manley	10,662	5,887	4,411	5,172	0	1,230	947	1,303	1,504	2,985	3,374	5,226	1,594
Minto	4,381	2,361	505	781	2	251	100	675	0	600	242	1,606	325
Nenana	14,207	3,799	6,781	5,619	8	999	1,070	7,802	5,367	10,594	10,530	6,083	5,166
Fairbanks [d]	5,736	4,031	960	1,630	0	191	229	1,949	1,024	6,691	1,311	2,471	2,017
Other [e]	1,481	3,472	1,713	2,269	300	855	856	1,257	1,058	2,076	1,468	1,847	1,220
District 6 Tanana R. Total [f]	36,467	19,550	14,370	15,471	310	3,526	3,202	12,986	8,953	22,946	16,925	17,234	10,323
Upper Yukon River Total [f]	116,726	86,542	53,661	78,225	11,989	27,751	15,727	51,006	57,420	84,014	75,418	69,429	47,184
Alaska, Yukon River Total [f, g]	128,866	95,141	62,867	89,736	19,306	35,144	19,390	56,784	62,206	91,464	83,815	79,183	52,998
Alaska, Yukon Area Total [f]	129,258	95,141	62,901	89,940	19,395	35,703	19,674	56,930	62,526	91,534	84,002	79,327	53,273

[a] Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

[b] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

[c] Other permit holders who fished in District 5 but did not reside in the communities listed.

[d] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvests by personal use permit holders.

[e] Other permits holders who fished in District 6 but did not reside in the communities listed.

[f] Does not include harvest by personal use permit holders.

[g] Does not include the Coastal District.

Appendix B4.–Coho salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1996–2006.

Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Hooper Bay	92	0	145	68	218	439	125	244	9	0	175	105	163
Scammon Bay	0	0	204	0	4	63	123	48	54	279	160	42	113
Coastal District Total	92	0	349	68	222	502	248	292	63	279	335	146	277
Nunam Iqua	138	51	229	51	5	32	56	117	79	241	392	95	105
Alakanuk	103	882	292	108	84	414	183	193	207	322	101	294	264
Emmonak	594	356	696	525	191	342	514	547	296	191	450	472	378
Kotlik	1,610	534	954	1,046	787	486	542	403	593	222	234	986	449
District 1 Subtotal	2,445	1,823	2,171	1,730	1,067	1,274	1,295	1,260	1,175	976	1,177	1,847	1,196
Mountain Village	276	1,089	954	665	376	423	361	745	521	246	1,856	672	459
Pitkas Point	691	427	305	302	139	112	47	130	0	30	16	373	64
St. Mary's	292	329	290	536	117	610	209	276	258	252	171	313	321
Pilot Station	1,258	323	413	249	1,708	222	230	371	296	241	225	790	272
Marshall	958	256	335	1,041	11	73	386	64	425	341	191	520	258
District 2 Subtotal	3,475	2,424	2,297	2,793	2,351	1,440	1,233	1,586	1,500	1,110	2,459	2,668	1,374
Russian Mission	255	10	233	542	24	0	115	178	151	133	19	213	115
Holy Cross	0	20	100	62	70	0	0	498	27	84	16	50	122
Shageluk	189	736	67	6	0	0	0	35	106	0	48	200	28
District 3 Subtotal	444	766	400	610	94	0	115	711	284	217	83	463	265
Lower Yukon River Total	6,364	5,013	4,868	5,133	3,512	2,714	2,643	3,557	2,959	2,303	3,719	4,978	2,835
Anvik	44	24	20	282	0	13	0	12	288	406	0	74	144
Grayling	236	1,055	133	201	372	144	30	559	233	234	224	399	240
Kaltag	298	60	71	333	110	533	212	463	138	307	106	174	331
Nulato	149	444	34	170	60	258	78	928	203	60	214	171	305
Koyukuk	476	345	421	295	138	80	249	1,155	166	37	330	335	337
Galena	780	1,002	322	123	71	142	169	1,507	1,307	607	137	460	746
Ruby/Kokrines	376	474	1,459	620	173	871	69	648	1,540	361	11	620	698
District 4 Subtotal (Excluding Koyukuk River)	2,359	3,404	2,460	2,024	924	2,041	807	5,272	3,875	2,012	1,022	2,234	2,801
Huslia	18	50	128	15	132	83	60	375	764	734	105	69	403
Hughes	51	250	5	10	12	117	100	20	110	20	150	66	73
Allakaket	39	50	0	0	0	25	56	99	17	205	25	18	80
Alatna	0	0	0	0	0	0	0	7	0	0	0	0	1
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River Subtotal	108	350	133	25	144	225	216	501	891	959	280	152	558
District 4 Total	2,467	3,754	2,593	2,049	1,068	2,266	1,023	5,773	4,766	2,971	1,302	2,386	3,360

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Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1996-2000 Average	2001-2005 Average
Tanana	6,110	3,045	2,572	3,989	4,826	6,675	2,032	3,480	1,049	1,616	3,619	4,108	2,970
Rampart [a]	5	34	20	126	0	0	0	0	0	10	0	37	2
Fairbanks [b]	42	26	11	0	2	11	0	120	91	10	79	16	46
Stevens Village	2	1	63	0	0	2	0	0	100	0	0	13	20
Beaver	7	0	0	0	0	0	17	0	0	0	0	1	3
Fort Yukon [c]	157	251	39	124	129	972	14	0	19	394	35	140	280
Circle	0	210	0	0	0	0	0	244	100	100	22	42	89
Central	0	0	0	0	0	0	0	0	0	1	0	0	0
Eagle	1	2	132	0	0	0	1	0	14	15	0	27	6
Other [d]	0	0	2	2	30	0	0	25	0	13	0	7	8
District 5 Subtotal (Excluding Chandalar and Black Rivers)	6,324	3,569	2,839	4,241	4,987	7,660	2,064	3,869	1,373	2,159	3,755	4,392	3,425
Venetie	264	7	0	0	0	10	12	11	5	0	24	54	8
Chalkyitsik	0	7	0	0	0	4	0	7	45	0	0	1	11
Chandalar/Black River Subtotal	264	14	0	0	0	14	12	18	50	0	24	56	19
District 5 Total	6,588	3,583	2,839	4,241	4,987	7,674	2,076	3,887	1,423	2,159	3,779	4,448	3,444
Manley	2,462	3,236	2,362	3,244	2,180	2,637	1,617	886	1,384	2,510	1,671	2,697	1,807
Minto	1,223	364	31	0	3	0	250	423	5	0	14	324	136
Nenana	7,883	5,147	3,519	4,023	1,767	4,443	3,574	5,431	6,494	12,395	7,032	4,468	6,467
Fairbanks [e]	2,314	1,230	786	868	0	68	1,024	1,049	1,435	3,032	745	1,040	1,322
Other [f]	1,011	1,618	774	1,259	1,200	1,818	3,034	2,574	2,266	1,601	1,109	1,172	2,259
District 6 Tanana River Total [g]	14,893	11,595	7,472	9,394	5,150	8,966	9,499	10,363	11,584	19,538	10,571	9,701	11,990
Upper Yukon Area Total [g]	23,948	18,932	12,904	15,684	11,205	18,906	12,598	20,023	17,773	24,668	15,652	16,535	18,794
Alaska, Yukon River Total [g, h]	30,312	23,945	17,772	20,817	14,717	21,620	15,241	23,580	20,732	26,971	19,371	21,513	21,629
Alaska, Yukon Area Total [g]	30,404	23,945	18,121	20,885	14,939	22,122	15,489	23,872	20,795	27,250	19,706	21,659	21,906

[a] Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

[b] Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

[c] Includes Birch Creek harvest of three coho salmon in 1997.

[d] Other permit holders who fished in District 5 but did not reside in the communities listed.

[e] Harvests by subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvests by personal use permit holders.

[f] Other permits holders who fished in District 6 but did not reside in the communities listed.

[g] Does not include harvest by personal use permit holders.

[h] Does not include the Coastal District.

Appendix B5.–Personal use salmon harvests taken under authority of a permit, Tanana River drainage, 1986–2006.

	Subdistrict 6-C Personal Use Salmon Fishery						
	Number	Number	Number	Reported Harvest			
	of Permits	of Permits	Reporting		Summer	Fall	
Year	Issued	Returned	Harvest	Chinook	Chum	Chum	Coho
1987	132 [a]	-	60 [b]			3,316	2,465
1988	208	162	120	317	1,182	2,074	1,125
1989	175	160	112	397	991	1,770	731
1990	152	144	102	442	918	1,353	1,120
1991 [c]	-	-	-	-	-	-	-
1992 [c]	-	-	-	-	-	-	-
1993	133	131	79	426	674	163	0
1994 [c]	-	-	-	-	-	-	-
1995	139	138	91	399	780	863	417
1996	129	125	73	215	905	356	198
1997	112	109	61	313	391	284	350
1998	103	101	52	357	84	2	9
1999 [d]	103	103	67	331	382	261	147
2000	70	69	16	75	30	1	0
2001	54	51	24	122	146	10	34
2002	57	55	29	126	175	3	20
2003	67	67	32	204	148	394	549
2004	68	66	35	201	231	230	233
2005	63	59	27	138	152	133	107
2006	60	60	35	89	262	333	279
Five Year Average							
2001-2005	62	60	29	158	170	154	189
Ten Year Average							
1996-2005	83	81	42	208	264	167	165

	Subdistrict 6-A Personal Use Salmon Fishery						
	Number	Number	Number	Reported Harvest			
	of Permits	of Permits	Reporting		Summer	Fall	
Year	Issued	Returned	Harvest	Chinook	Chum	Chum	Coho
1987	no permits issued						
1988	1	1	0	0	0	0	0
1989	1	1	1	0	4	0	0
1990	1	1	0	0	0	0	0
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 [e]	no permits issued						
1988-1990							
Average	1	1	0	0	1	0	0

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Subdistrict 6-B Personal Use Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	1	306	60	40	22
1989	1	1	1	56	220	0	0
1990	4	4	3	9	12	40	35
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 [e]	no permits issued						
1988-1990 Average	2	2	2	124	97	27	19

Upper Tanana River Personal Use Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	no permits issued						
1989	no permits issued						
1990	no permits issued						
1991 [f]	no permits issued						

Note: Dashes indicate information was not collected.

[a] Includes 60 former subsistence fishermen who were reissued personal use permits to fish for fall chum and coho salmon.

[b] Some fishing households used both subsistence and personal use permits.

[e] From July 1, 1990 through 1992, and in 1994, the regulations did not provide for a personal use fishery in this area.

[d] Does not include four whitefish and longnose sucker fishery permit holders, two of which fished, that reported a total harvest of one fall chum and six coho salmon in 1999.

[e] After 1997 the regulations did not provide for a personal use fishery in this areas.

[f] After July 1, 1991 the regulations did not provide for a personal use salmon fishery in this area.

Appendix B6.–Subsistence salmon harvests taken under authority of a permit in portions of District 5, Yukon Area, 1974–2006.

	Yukon River "Bridge" Area Subsistence Salmon Fishery [a]						
	Number of Permits	Number of Permits	Number Reporting	Reported Harvest			
Year	Issued	Returned	Harvest	Chinook	Summer Chum [b]	Fall Chum [b]	Coho
1974	29	-	-	591	-	1,857	1,271
1975	19	-	-	727	-	778	70
1976	28	-	18	531	-	974	-
1977	38	-	-	467	-	2,567	-
1978	57	-	-	1,333	-	9,735	-
1979	55	-	41	2,194	-	12,374	-
1980	70	-	67	1,350	-	6,488	36
1981	57	-	24	1,095	-	12,034	-
1982	64	-	44	1,935	-	11,328	20
1983	68	-	46	2,672	-	15,059	-
1984	67	-	54	4,676	-	27,869	399
1985	55	-	42	2,618	-	21,832	33
1986	76	-	58	3,827	-	18,690	759
1987	16	-	14	1,818	2,091	7,631	6
1988	24	21	18	1,747	2,097	3,183	606
1989	26	20	13	2,483	574	1,157	309
1990	26	25	16	2,033	3,493	1,109	455
1991	52	46	34	2,529	1,295	3,953	20
1992	45	42	33	2,241	975	2,491	34
1993	49	47	36	3,767	492	2,915	16
1994	50	49	36	3,073	384	2,911	25
1995	59	59	39	3,253	954	2,244	59
1996	47	45	31	1,157	3,475	2,727	42
1997	44	42	28	1,588	683	491	26
1998	48	47	31	1,685	103	156	15
1999	66	64	47	1,653	356	701	2
2000	56	52	33	1,607	324	8	32
2001	65	62	38	1,819	176	0	13
2002	60	58	45	2,285	320	100	0
2003	86	80	62	2,670	89	104	145
2004	69	67	51	2,032	164	43	91
2005	76	72	57	1,847	643	17	9
2006	68	66	53	1,952	1,063	4,855	79
Five Year Average							
2001-2005	71	68	51	2,131	278	53	52
Ten Year Average							
1996-2005	62	59	42	1,834	633	435	38

	Yukon River "Rampart Village" Area Subsistence Salmon Fishery [c]						
	Number of Permits	Number of Permits	Number Reporting	Reported Harvest			
Year	Issued	Returned	Harvest	Chinook	Summer Chum [b]	Fall Chum [b]	Coho
2004	14	11	9	832	249	0	0
2005	22	19	17	1,721	663	2,023	10
2006	19	19	16	1,083	647	318	0
Two Year Average							
2004-2005	18	15	13	1,277	456	1,012	5

-continued-

Appendix B6.–Page 2 of 2.

	Upper Yukon River "Circle-Eagle" Area Subsistence Salmon Fishery [d]						
	Number of Permits	Number of Permits	Number Reporting	Reported Harvest			
Year	Issued	Returned	Harvest	Chinook	Summer Chum [b]	Fall Chum [b]	Coho
1979	75	-	6	4,063	-	30,475	114
1980	48	-	39	3,649	-	18,477	6
1981	71	-	51	4,510	-	38,333	-
1982	60	-	61	3,833	-	15,432	-
1983	53	-	52	2,831	-	23,708	-
1984	58	-	54	2,543	-	21,675	17
1985	59	-	36	2,419	-	19,059	2
1986	40	-	52	4,148	-	20,701	43
1987	51	51	58[e]	3,602	2,495	27,369	0
1988	58	57	50	2,783	2,134	9,078	101
1989	59	56	42	1,186	68	7,515	1
1990	81	75	54	3,746	1,629	14,992	206
1991	70	69	48	3,219	658	14,898	5
1992	85	79	54	2,984	409	12,009	57
1993	79	79	49	1,910	118	2,419	95
1994	79	76	51	3,093	145	12,844	30
1995	87	87	53	3,628	129	19,047	1
1996	86	84	51	3,458	528	20,861	1
1997	98	93	60	3,148	393	18,616	212
1998	101	95	54	3,562	55	630	132
1999	119	116	71	3,404	364	14,079	0
2000	121	118	47	1,806	233	33	0
2001	98	93	33	1,688	561	5,322	0
2002	94	87	42	3,877	29	418	1
2003	95	85	58	3,406	189	3,374	0
2004	89	83	50	2,304	223	6,517	114
2005	89	81	55	4,004	241	18,427	130
2006	85	82	59	3,302	1,034	17,866	22
Five Year Average							
2001-2005	93	86	48	3,056	249	6,812	49
Ten Year Average							
1996-2005	99	94	52	3,066	282	8,828	59

Note: Prior to 1988, reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded. Dashes indicate information was not collected.

[a] That portion of the Yukon River drainage from Hess Creek to Dall River.

[b] Summer chum and fall chum salmon undifferentiated prior to 1986.

[c] That portion of the Yukon River drainage from Garnet Island to Hess Creek. Permits were first required in 2004.

[d] That portion of the Yukon River drainage from the upstream mouth of Twenty-Two Mile Slough (downstream of Circle) to the United States/Canadian border.

[e] Harvest was reported from some fishermen who did not have permits.

Appendix B7.–Subsistence salmon harvests taken under authority of a permit, Tanana River drainage, 1973–2006.

	Subdistrict 6-A Subsistence Salmon Fishery						
	Number of Permits	Number of Permits	Number Reporting	Reported Harvest			
Year	Issued	Returned	Harvest	Chinook	Summer Chum	Fall Chum	Coho
1988 [a]	28	24	18	845	1,389	9,165	3,455
1989 [a, b]	29	28	24[c]	651	1,918	25,266	5,292
1990 [b]	42	36	26	1,369	2,250	27,957	8,408
1991	45	41	31	420	1,716	17,472	8,486
1992	38	35	26	508	450	5,999	5,028
1993 [b]	42	41	22	331	784	2,617	1,317
1994 [d]	37	37	30	576	3,793	18,076	12,449
1995	41	38	29	456	4,898	23,522	11,344
1996	31	29	23	209	1,338	18,931	5,959
1997	33	32	21	887	542	10,621	3,703
1998	31	31	19	512	519	4,726	1,526
1999	24	24	14	137	525	5,712	3,464
2000	24	24	12	80	240	0	2,441
2001	26	24	14	398	327	1,541	3,319
2002	24	23	20	542	101	1,341	2,246
2003	23	21	13	276	65	2,445	2,514
2004	23	23	12	339	308	2,148	2,004
2005	24	22	15	424	168	4,317	2,659
2006	24	24	18	503	114	3,694	2,283
Five Year Average 2001-2005	24	23	15	396	194	2,358	2,548
Ten Year Average 1996-2005	26	25	16	380	413	5,178	2,984

	Subdistrict 6-B Subsistence Salmon Fishery						
	Number of Permits	Number of Permits	Number Reporting	Reported Harvest [e]			
Year	Issued	Returned	Harvest	Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989 [f]	60	51	37[d]	455	363	18,506	8,453
1990 [f]	70	58	38	1,234	1,966	16,332	9,155
1991 [f]	87	78	51	1,796	2,373	21,629	11,971
1992 [f]	98	89	57	1,587	7,820	18,782	11,409
1993	99	89	38	1,341	5,976	7,166	2,987
1994	102	94	49	1,337	2,035	13,726	12,480
1995	98	98	59	1,322	6,712	25,364	7,458
1996	105	96	59	968	6,138	17,439	8,934
1997	103	95	55	1,825	3,282	8,729	7,892
1998	94	84	46	1,407	5,485	9,573	5,937
1999	83	79	47	1,487	2,129	9,757	5,930
2000	81	79	33	903	869	210	2,709
2001	87	81	44	1,511	74	1,983	5,646
2002	62	60	25	525	711	2,193	8,032
2003	77	72	40	1,839	2,849	10,537	7,849
2004	60	56	30	1,049	1,485	6,805	9,580
2005	70	67	29	1,404	1,846	15,367	9,659
2006	78	76	42	423	885	13,047	7,897
Five Year Average 2001-2005	71	67	34	1,266	1,393	7,377	8,153
Ten Year Average 1996-2005	82	77	41	1,292	2,487	8,259	7,217

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Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest Chinook	Summer Chum	Fall Chum	Coho
	Upper Tanana River Drainage Subsistence Salmon Fishery						
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990	1	1	0	0	0	0	0
1991	8	7	6	0	0	288	14
1992	11	11	4	0	0	36	1
1993	10	10	8	0	0	5	0
1994	7	7	3	0	0	202	15
1995	50	46	12	0	0	88	0
1996	42	39	15	0	10	97	0
1997	61	58	26	0	0	200	0
1998	46	46	17	0	0	71	9
1999	29	29	13	0	0	2	0
2000	41	36	16	0	2	100	0
2001	57	50	22	0	0	2	1
2002	32	31	16	0	0	25	0
2003	38	32	17	30	0	4	0
2004	35	30	14	0	0	0	0
2005	29	24	13	0	0	15	0
2006	23	22	17	0	0	10	0
Five Year Average 2001-2005	38	33	16	6	0	9	0
Ten Year Average 1996-2005	41	38	17	3	1	52	1

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest Chinook	Summer Chum	Fall Chum	Coho [g]
	Subdistrict 6-C Subsistence Salmon Fishery						
1973	22	-	4	26	771	886	-
1974	70	-	-	38	1,373	1,580	-
1975	36	-	-	32	751	864	-
1976	110	-	-	31	1,314	1,512	-
1977	89	-	33	81	118	607	-
1978	160	-	126	126	2,729	1,188	-
1979	246	-	199	264	2,384	4,459	-
1980	315	-	254	282	3,729	4,059	-
1981	346	-	228	440	3,239	5,770	-
1982	330	-	209	451	2,708	4,521	-
1983	259	-	147	475	2,276	3,830	-
1984	308	-	212	321	3,177	5,134	-
1985	291	-	155	326	2,646	3,937	-
1986	323	-	211	637	4,031	4,437	-
1987 [h]	217	-	123	531	2,739	0	-
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990 [i]	19	18	6	15	69	279	50
1991	149	142	98	299	980	1,080	1,089
1992	149	146	90	343	1,234	896	1,116
1993 [j]	0	0	0	0	0	0	0
1994 [k, l]	145	142	107	457	1,198	1,600	1,545
All Years Average	163	64	116	235	1,703	2,120	543

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Note: Prior to 1988 reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded. From 1973 to 1994, a Subdistrict 6-C subsistence salmon fishery occurred until regulations were repealed within the Fairbanks Nonsubsistence Area in 1994.

[a] Many Subdistrict 6-A fishermen did not obtain a permit in 1988 and 1989.

[b] Includes salmon given away as part of an ADF&G test fishery project in Manley.

[c] Harvest was reported from some fishermen who did not have permits.

[d] Beginning in 1994, a separate Kantishna River drainage permit was required. The Subdistrict 6-A harvest totals include permits from the Kantishna River drainage.

[e] Includes small numbers of salmon harvested and reported from the Tolovana River drainage (Subdistrict 6-B) subsistence pike permit was established in 1993.

[f] Includes salmon given away as part of an ADF&G test fishery project in Nenana.

[g] Prior to 1988, fall chum and coho salmon were not reported as separate species.

[h] Personal use fishery established for nonrural residents beginning in July of 1987.

[i] Some fishermen had both personal use and subsistence permits. The McDowell Decision (Appendix C) became effective July 1990 (midway through the season), and stated that all Alaskan residents were eligible subsistence participants.

[j] Personal use fishery was established for those fishing for salmon in the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

[k] No personal use permits were issued in 1994 for this area.

[l] After 1994, subsistence regulations were repealed with the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

Appendix B8.–Reported number of salmon distributed from test fish projects, Yukon Area, 1992–2006.

Chinook Salmon

	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						
Year	Test Fish Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall [a]	Russian Mission [a]	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	Total
1992	1,715	-	-	-	-	-	-	-	-	-	-	0	-	113	-	-	1,828
1993	1,584	-	-	471	-	-	-	-	-	-	-	0	-	0	0	-	2,055
1994	1,985	-	-	334	-	-	-	-	-	-	-	0	-	0	0	-	2,319
1995	1,715	-	1	166	-	-	-	-	-	-	2	1	-	0	0	0	1,885
1996	1,355	-	0	0	-	-	-	-	-	-	-	0	-	0	0	0	1,355
1997	1,825	-	2	330	-	-	-	-	-	-	-	0	-	0	0	-	2,157
1998	1,035	-	8	435	-	-	-	-	-	-	-	0	-	0	0	-	1,478
1999	1,656	-	1	359	773	-	-	1	-	-	-	0	-	0	0	-	2,790
2000	1,344	-	0	450	1,024	11	23	0	-	-	-	-	0	0	0	-	2,852
2001	1,379	535	0	561	-	27	11	0	-	-	-	-	0	0	-	-	2,513
2002	1,268	253	0	545	-	8	18	0	-	-	-	-	0	0	0	-	2,092
2003	[b]	374	0	846	-	-	33	0	0	-	-	-	0	0	0	-	1,253
2004	[b]	1,158	0	665	-	-	20	0	-	-	-	-	0	0	0	-	1,843
2005	[b]	1,430	0	699	-	-	-	0	-	179	-	-	0	0	0	-	2,308
2006	[b]	1,367	0	366	362	-	-	0	-	20	-	-	0	38	0	-	2,153
Five Year Average 2001 to 2005	1,324	750	0	663	-	18	21	0	0	179	-	-	0	0	0	-	2,002

Summer Chum Salmon

	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						
Year	Test Fish Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall [a]	Russian Mission [a]	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	Total
1992	3,989	-	-	-	-	-	-	-	-	-	-	0	-	112	-	-	4,101
1993	4,111	-	-	2,098	-	-	-	-	-	-	-	33	-	0	0	-	6,242
1994	7,060	-	-	2,998	-	-	-	-	-	-	-	0	-	0	0	-	10,058
1995	6,382	-	0	1,875	-	-	-	-	-	-	57	50	-	0	0	0	8,364
1996	7,052	-	0	276	-	-	-	-	-	-	-	0	-	0	0	0	7,328
1997	4,539	-	0	2,420	-	-	-	-	-	-	-	0	-	0	0	-	6,959
1998	2,290	-	0	2,209	-	-	-	-	-	-	-	0	-	0	147	-	4,646
1999	2,717	-	0	1,636	181	-	-	0	-	-	-	0	-	0	0	-	4,534
2000	2,499	-	0	2,141	335	0	0	0	-	-	-	-	5	0	0	-	4,980
2001	211	1,787	0	1,696	-	1	2	0	-	-	-	-	0	0	-	-	3,697
2002	199	2,209	0	2,174	-	10	0	0	-	-	-	-	0	0	0	-	4,592
2003	[b]	1,801	0	2,060	-	-	5	0	0	-	-	-	0	0	0	-	3,866
2004	[b]	868	0	1,848	-	-	29	0	-	-	-	-	0	0	0	-	2,745
2005	[b]	1,765	0	1,612	-	-	-	0	-	2	-	-	0	0	0	-	3,379
2006	[b]	2,192	0	1,175	238	-	-	0	-	0	-	-	0	0	0	-	3,605
Five Year Average 2001 to 2005	205	1,686	0	1,878	-	6	9	0	0	2	-	-	0	0	0	-	3,656

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Fall Chum Salmon

Year	Set Gillnet Test Fish Lower Yukon	Drift Gillnet Test Fish Projects: Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall [a]	Russian Mission [a]	Kaltag	Rampart	Eagle	Test Fish Wheel Projects: Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	Total
1992	2,462	-	-	-	-	-	-	-	-	-	-	0	-	110	-	-	2,572
1993	3,692	-	-	652	-	-	-	-	-	-	-	65	-	0	0	-	4,409
1994	2,566	-	-	1,349	-	-	-	-	-	-	-	0	-	7	1,895	-	5,817
1995	2,408	-	523	541	-	-	-	-	-	-	199	194	-	0	1,876	1,570	7,311
1996	1,421	-	319	150	-	-	-	-	-	-	-	0	-	0	0	1,081	2,971
1997	1,466	-	962	997	-	-	-	-	-	-	-	0	-	0	0	-	3,425
1998	2,000	-	664	1,110	-	-	-	-	-	-	-	0	-	0	0	-	3,774
1999	4,061	-	1,008	968	0	-	-	483	-	-	-	0	-	0	0	-	6,520
2000	2,921	-	269	834	0	0	0	190	-	-	-	-	0	0	0	-	4,214
2001	-	1,694	339	1,492	-	0	0	494	-	-	-	-	0	0	0	-	4,019
2002	-	1,050	175	680	-	0	0	314	-	-	-	-	0	0	0	-	2,219
2003	-	1,247	328	823	-	-	0	457	873	-	-	-	0	0	0	-	3,728
2004	-	635	425	726	-	-	0	592	-	-	-	-	0	0	0	-	2,378
2005	-	1,118	758	821	-	-	-	744	-	0	-	-	0	0	0	-	3,441
2006	-	880	621	664	0	-	-	672	-	15	-	-	0	159	0	-	3,011
Five Year Average 2001 to 2005	-	1,149	405	908	-	0	0	520	873	0	-	-	0	0	0	-	3,157

Coho Salmon

Year	Set Gillnet Test Fish Lower Yukon	Drift Gillnet Test Fish Projects: Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall [a]	Russian Mission [a]	Kaltag	Rampart	Eagle	Test Fish Wheel Projects: Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	Total
1992	2,557	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	2,557
1993	1,210	-	-	222	-	-	-	-	-	-	-	0	-	0	0	-	1,432
1994	2,033	-	-	786	-	-	-	-	-	-	-	0	-	0	266	-	3,085
1995	579	-	559	205	-	-	-	-	-	-	0	0	-	0	164	0	1,507
1996	755	-	228	25	-	-	-	-	-	-	-	0	-	0	0	0	1,008
1997	593	-	309	283	-	-	-	-	-	-	-	0	-	0	0	-	1,185
1998	792	-	567	364	-	-	-	-	-	-	-	0	-	0	0	-	1,723
1999	649	-	2	180	0	-	-	70	-	-	-	0	-	0	0	-	901
2000	949	-	313	1,705	0	0	0	110	-	-	-	-	322	0	0	-	3,399
2001	-	492	302	180	-	0	0	251	-	-	-	-	0	0	0	-	1,225
2002	-	374	155	225	-	0	0	158	-	-	-	-	0	0	0	-	912
2003	-	635	362	371	-	-	0	23	0	-	-	-	0	0	0	-	1,391
2004	-	152	285	236	-	-	0	128	-	-	-	-	0	0	0	-	801
2005	-	112	107	241	-	-	-	120	-	0	-	-	0	0	0	-	580
2006	-	144	204	193	0	-	-	37	-	0	-	-	0	389	0	-	967
Five Year Average 2001 to 2005	-	353	242	251	-	0	0	136	0	0	-	-	0	0	0	-	982

Note: Dashes indicate test fish project was not in operation. Does not include salmon that were accounted for by using the survey or permit methods.

[a] Chinook salmon radiotelemetry project.

[b] Salmon caught in the Lower Yukon "set" gillnet test fishery are included with Lower Yukon "drift" gillnet totals.

Appendix B9.–Estimated pink salmon subsistence harvest by residents of surveyed communities, with community and district totals, Yukon Area, 1996–2006.

												Estimated Total		
												Even Years	Odd Years	1996 to 2005
Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Average	Average	Average
Hooper Bay	3,212	265	1,941	99	902	32	5,475	473	5,418	860	1,433	3,390	346	1,868
Scammon Bay	305	0	1,791	527	96	362	417	997	2,508	1,645	1,381	1,023	706	865
Coastal District	3,517	265	3,732	626	998	394	5,892	1,470	7,926	2,505	2,814	4,413	1,052	2,732
Nunam Iqua	262	1	299	0	0	0	10	5	32	132	555	121	28	74
Alakanuk	35	33	239	0	38	0	130	0	233	49	115	135	16	76
Emmonak	46	35	145	17	0	9	39	4	32	54	225	52	24	38
Kotlik	100	0	907	15	263	0	849	198	318	155	219	487	74	280
District 1	443	69	1,590	32	301	9	1,028	207	615	390	1,114	795	141	468
Mountain Village	611	10	753	0	61	0	745	117	891	78	616	612	41	327
Pitkas Point	280	101	330	12	114	0	35	0	0	2	44	152	23	87
St. Mary's	42	4	467	1	54	0	7	0	137	144	236	141	30	86
Pilot Station	0	0	0	8	6	0	22	0	5	0	1	7	2	4
Marshall	0	0	0	0	0	0	473	0	105	6	3	116	1	58
District 2	933	115	1,550	21	235	0	1,282	117	1,138	230	900	1,028	97	562
Russian Mission	0	0	211	0	8	0	0	0	6	0	8	45	0	23
Holy Cross	140	0	150	0	20	0	0	0	0	0	17	62	0	31
Shageluk	40	0	1,256	0	0	0	0	130	0	0	0	259	26	143
District 3	180	0	1,617	0	28	0	0	130	6	0	25	366	26	196
Anvik	0	0	50	0	30	0	0	240	0	0	0	16	48	32
Grayling	4	0	649	1	0	0	30	3	0	3	0	137	1	69
Kaltag	0	11	1	1	0	0	0	0	10	4	0	2	3	3
Nulato	0	0	0	0	0	0	50	0	0	0	1	10	0	5
Koyukuk	0	23	0	0	0	0	4	0	0	0	0	1	5	3
Galena	52	0	0	0	0	0	50	0	0	0	0	20	0	10
Ruby	3	0	0	0	1	0	87	0	2	0	0	19	0	9
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	59	34	700	2	31	0	221	243	12	7	1	205	57	131

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Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Estimated Total Even Years Average	Estimated Total Odd Years Average	Estimated Total 1996 to 2005 Average
Tanana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Totals	5,132	483	9,189	681	1,593	403	8,423	2,167	9,697	3,132	4,854	6,807	1,373	4,090
CI (95%) [a]	2,204	290	2,511	621	559	416	4,091	964	2,829	1,521	990	-	-	-

Note: Even year average does not include the current year.

[a] Annual 95% confidence interval.

Appendix B10.–Households with dogs, number of dogs, and salmon fed to dogs, as estimated in surveyed communities or reported in permit areas, Yukon Area, 1990–2006.

Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1990						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	455	2,859	372	0	3,231
District 2 Survey	-	775	3,278	415	3,665	7,358
District 3 Survey	-	272	8,248	120	166	8,534
District 4 Survey	-	1,385	91,256	6,911	2,511	100,678
District 5 Survey	-	1,286	5,697	72,424	9,118	87,239
District 5 Permit [a]	-	-	-	-	-	-
District 6 Permit	-	-	-	-	-	-
Totals	0	4,173	111,338	80,242	15,460	207,040
1991						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	349	30	0	16	46
District 2 Survey	-	543	723	652	874	2,249
District 3 Survey	-	145	1,747	150	0	1,897
District 4 Survey	-	1,660	169,866	903	591	171,360
District 5 Survey	-	1,520	28,518	54,657	2,754	85,929
District 5 Permit [a]	49	400	-	-	-	11,522
District 6 Permit	220	1,980	-	-	-	19,479
Totals	269	6,597	200,884	56,362	4,235	292,482
1992						
Coastal District Survey	133	513	659	0	0	659
District 1 Survey	262	617	512	1,000	153	1,665
District 2 Survey	285	971	694	247	2,237	3,178
District 3 Survey	113	507	4,893	74	37	5,004
District 4 Survey	436	2,065	139,513	6,950	3,323	149,786
District 5 Survey	323	1,577	12,897	38,529	14,529	65,955
District 5 Permit [a]	52	492	-	-	-	7,026
District 6 Permit	255	2,270	-	-	-	18,115
Totals	1,859	9,012	159,168	46,800	20,279	251,388
1993						
Coastal District Survey	150	391	0	0	0	0
District 1 Survey	280	690	654	70	22	746
District 2 Survey	232	880	794	260	670	1,724
District 3 Survey	118	447	2,671	734	162	3,567
District 4 Survey	435	1,645	44,793	3,905	579	49,277
District 5 Survey	348	1,840	5,490	38,888	5,147	49,525
District 5 Permit [a]	54	1,031	-	-	-	1,133
District 6 Permit	143	1,857	-	-	-	1,547
Totals	1,760	8,781	54,402	43,857	6,580	107,519
1994						
Coastal District Survey	161	367	1,287	0	0	1,287
District 1 Survey	288	819	267	144	384	795
District 2 Survey	286	1,074	1,066	653	2,470	4,189
District 3 Survey	123	413	5,279	0	162	5,441
District 4 Survey [b]	427	1,649	92,127	4,720	2,916	99,763
District 5 Survey	355	1,426	10,903	51,674	4,422	66,999
District 5 Permit [a]	103	534	-	-	-	9,824
District 6 Permit	212	2,269	-	-	-	34,111
Totals	1,955	8,551	110,929	57,191	10,354	222,409

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Districts Survey or Permit and Year		Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1995							
Coastal District Survey		158	596	2,919	214	0	3,133
District 1 Survey		223	391	531	43	7	581
District 2 Survey		213	677	1,587	436	979	3,002
District 3 Survey		111	347	8,450	265	100	8,815
District 4 Survey		423	1,830	183,386	9,092	1,151	193,629
District 5 Survey		356	1,442	6,222	50,680	2,107	59,009
District 5 Permit [a]		54	495	-	-	-	17,980
District 6 Permit		103	1,723	-	-	-	50,731
	Totals	1,641	7,501	203,095	60,730	4,344	336,880
1996							
Coastal District Survey		159	406	0	0	0	0
District 1 Survey		298	682	1,847	250	38	2,135
District 2 Survey		251	1,044	1,460	1,724	1,423	4,607
District 3 Survey		134	513	3,558	0	0	3,558
District 4 Survey		468	1,607	130,575	5,771	1,324	137,670
District 5 Survey		325	1,289	10,155	48,836	5,966	64,957
District 5 Permit [a]		53	293	-	-	-	14,345
District 6 Permit		176	1,907	-	-	-	43,590
	Totals	1,864	7,741	147,595	56,581	8,751	270,862
1997							
Coastal District Survey		174	494	837	0	0	837
District 1 Survey		255	683	103	0	0	103
District 2 Survey		301	1,075	779	498	142	1,419
District 3 Survey		111	492	11,418	400	746	12,564
District 4 Survey		430	1,209	63,850	4,481	3,141	71,472
District 5 Survey		254	1,146	2,943	33,188	2,961	39,092
District 5 Permit [a]		95	569	-	-	-	19,584
District 6 Permit		156	1,898	-	-	-	12,813
	Totals	1,776	7,566	79,930	38,567	6,990	157,884
1998							
Coastal District Survey		185	503	0	0	0	0
District 1 Survey		259	555	1,711	270	0	1,981
District 2 Survey		293	966	682	110	137	929
District 3 Survey		106	394	4,288	32	202	4,522
District 4 Survey		560	1,731	14,468	3,394	1,935	19,797
District 5 Survey		356	1,342	2,029	29,448	2,680	34,157
District 5 Permit [a]		113	598	-	-	-	1,262
District 6 Permit		136	1,610	-	-	-	22,311
	Totals	2,008	7,699	23,178	33,254	4,954	84,959
1999							
Coastal District Survey		163	276	135	0	0	135
District 1 Survey		252	451	254	20	25	299
District 2 Survey		312	982	778	52	1,277	2,107
District 3 Survey		95	374	4,153	50	240	4,443
District 4 Survey		481	1,502	15,546	3,399	1,513	20,458
District 5 Survey		273	1,233	1,436	36,006	3,844	41,286
District 5 Permit [a]		141	739	-	-	-	11,013
District 6 Permit		107	1,321	-	-	-	13,256
	Totals	1,824	6,878	22,302	39,527	6,899	92,997

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
2000						
Coastal District Survey	215	451	0	0	0	0
District 1 Survey	247	552	1,240	741	0	1,981
District 2 Survey	307	941	467	30	30	527
District 3 Survey	111	374	419	150	70	639
District 4 Survey	441	1,318	4,237	846	329	5,412
District 5 Survey	236	811	1,263	5,972	1,791	9,026
District 5 Permit [a, c]	67	568	-	-	-	317
District 6 Permit [c]	70	1,327	-	-	-	3,082
Totals	1,694	6,342	7,626	7,739	2,220	20,984
2001						
Coastal District Survey	234	495	0	0	0	0
District 1 Survey	318	609	223	100	0	323
District 2 Survey	331	926	255	210	80	545
District 3 Survey	114	610	873	111	25	1,009
District 4 Survey	553	2,074	4,571	2,014	1,263	7,848
District 5 Survey	293	1,026	1,649	10,629	5,976	18,254
District 6 Permit [c]	121	583	-	-	-	8,065
District 6 Permit [d]	130	1,266	-	-	-	7,506
Totals	2,094	7,589	7,571	13,064	7,344	43,550
2002						
Coastal District Survey	207	399	0	0	67	67
District 1 Survey	282	655	14	59	30	103
District 2 Survey	327	847	410	38	379	827
District 3 Survey	88	312	620	0	0	620
District 4 Survey	437	1,502	8,286	848	697	9,831
District 5 Survey	197	677	2,256	6,324	1,393	9,973
District 5 Permit [a, c]	81	546	-	-	-	689
District 6 Permit [c]	111	806	-	-	-	11,722
Totals	1,730	5,744	11,586	7,269	2,566	33,832
2003						
Coastal District Survey	132	365	0	0	0	0
District 1 Survey	239	483	115	0	38	153
District 2 Survey	236	729	635	0	58	693
District 3 Survey	87	298	3,650	0	0	3,650
District 4 Survey	384	1,728	15,648	4,118	3,271	23,037
District 5 Survey	221	864	3,268	19,267	2,862	25,397
District 5 Permit [a, c]	59	672	-	-	-	1,614
District 6 Permit [c]	161	866	-	-	-	12,717
Totals	1,519	6,005	23,316	23,385	6,229	67,261
2004						
Coastal District Survey	151	300	13	0	0	13
District 1 Survey	235	505	534	21	0	555
District 2 Survey	270	630	1,114	62	376	1,552
District 3 Survey	97	272	1,228	0	0	1,228
District 4 Survey	421	1,424	12,608	3,382	3,232	19,222
District 5 Survey	241	853	2,134	31,266	1,103	34,503
District 5 Permit [a, c]	60	644	-	-	-	3,428
District 6 Permit [c]	149	1,003	-	-	-	18,261
Totals	1,624	5,631	17,631	34,731	4,711	78,762

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
2005						
Coastal District Survey	190	375	0	0	0	0
District 1 Survey	262	482	302	46	34	382
District 2 Survey	281	563	1,315	137	104	1,556
District 3 Survey	78	214	2,288	342	70	2,700
District 4 Survey	364	1,325	5,993	3,236	1,464	10,693
District 5 Survey	277	1,229	4,566	24,982	1,498	31,046
District 5 Permit [a, c]	59	609	-	-	-	8,316
District 6 Permit [c]	143	1,175	-	-	-	27,179
Totals	1,654	5,972	14,464	28,743	3,170	81,872
2006						
Coastal District Survey	197	397	0	37	63	100
District 1 Survey	272	457	270	147	0	417
District 2 Survey	294	612	373	355	318	1,046
District 3 Survey	109	288	95	95	0	190
District 4 Survey	426	1,251	9,885	1,298	77	11,260
District 5 Survey	238	1,257	7,664	23,607	3,236	34,507
District 5 Permit [a, c]	62	596	-	-	-	12,934
District 6 Permit [c]	140	1,027	-	-	-	15,194
Totals	1,738	5,885	18,287	25,539	3,694	75,648

Five Year Average 2001 to 2005	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
Coastal District Survey	183	387	3	0	13	16
District 1 Survey	267	547	238	45	20	303
District 2 Survey	289	739	746	89	199	1,035
District 3 Survey	93	341	1,732	91	19	1,841
District 4 Survey	432	1,611	9,421	2,720	1,985	14,126
District 5 Survey	246	930	2,775	18,494	2,566	23,835
District 5 Permit [a, c]	76	611	-	-	-	4,422
District 6 Permit [c]	139	1,023	-	-	-	15,477
Totals	1,724	6,188	14,914	21,438	4,804	61,055

Note: Beginning in 1993, the estimated number of salmon includes those retained from subsistence and commercial-related harvests. Prior to 1992, information for the community of Shageluk was included in District 4 totals; Shageluk is now included in District 3. Beginning 2004, the community of Rampart was included in District 5 permit totals. Dashes indicate information was not collected.

[a] Permit totals do not include the community of Stevens Village.

[b] Does not include the communities of Hughes, Allakaket and Alatna which were not surveyed due to a major flood event.

[c] Does not include duplicate information from households with more than one permit.

Appendix B11.–Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 1996–2006.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Five Year Average 1996-2000	Five Year Average 2001-2005
Survey Estimates [a]													
Whitefish	63,610	77,630	70,261	50,748	45,292	86,200	78,489	68,416	64,039	48,862	60,923	61,508	69,201
Pike	18,833	29,540	22,459	16,928	9,174	16,753	18,906	22,341	18,738	29,799	28,133	19,387	21,307
Sheefish	17,793	19,538	19,159	12,550	6,581	14,384	15,960	14,280	16,896	13,764	12,745	15,124	15,057
Survey Reported													
Burbot	13,654	6,381	6,704	11,545	2,168	2,836	5,809	3,000	2,628	3,138	5,069	8,090	3,482
Lamprey	4,630	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	8,213	21,413
Tomcod	4,554	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	4,288	5,404
Grayling	1,664	1,600	1,578	1,476	346	1,503	1,408	2,421	1,645	1,258	1,145	1,333	1,647
Suckers	191	667	128	104	364	277	546	234	178	1,452	105	291	537
Arctic Char	210	131	206	131	32	251	198	376	116	217	345	142	232
Blackfish	145,752	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	186,241	234,063
Sockeye Salmon	-	-	-	-	-	-	-	-	787	648	333	-	718
Permit Reported													
Whitefish	5,474	5,157	4,019	3,734	3,205	2,430	2,856	5,508	4,402	3,671	3,399	4,318	3,773
Pike	2,113	1,978	793	812	687	451	791	1,266	606	641	1,008	1,277	751
Sheefish	127	190	137	176	85	75	66	203	97	155	80	143	119
Burbot	105	215	137	101	95	124	65	129	127	78	127	131	105
Grayling	315	154	55	439	521	51	138	1,228	1,032	800	507	297	650
Suckers	1,156	858	459	986	739	236	344	978	341	694	770	840	519
Yukon Area Totals													
Whitefish	69,084	82,787	74,280	54,482	48,497	88,630	81,345	73,924	68,441	52,533	64,322	65,826	72,975
Pike	20,946	31,518	23,252	17,740	9,861	17,204	19,697	23,607	19,344	30,440	29,141	20,663	22,058
Sheefish	17,920	19,728	19,296	12,726	6,666	14,459	16,026	14,483	16,993	13,919	12,825	15,267	15,176
Burbot	13,759	6,596	6,841	11,646	2,263	2,960	5,874	3,129	2,755	3,216	5,196	8,221	3,587
Lamprey	4,630	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	8,213	21,413
Tomcod	4,554	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	4,288	5,404
Grayling	1,979	1,754	1,633	1,915	867	1,554	1,546	3,649	2,677	2,058	1,652	1,630	2,297
Suckers	1,347	1,525	587	1,090	1,103	513	890	1,212	519	2,146	875	1,130	1,056
Arctic Char	210	131	206	131	32	251	198	376	116	217	345	142	232
Blackfish	145,752	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	186,241	234,063
Sockeye Salmon	-	-	-	-	-	-	-	-	787	648	333	-	718

Note: Dashes indicate information was not collected.

[a] Subsistence whitefish, pike, and sheefish estimates in surveyed communities are based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests.

Appendix B12.–Surveyed households which indicated that their subsistence salmon needs were not met, Yukon Area, 1992–2002.

Year	Total Number of Households Contacted	Total Number of Responses Indicating Needs Were not Met	Percent of Responses Indicating Needs Were not Met	Percent of Responses Indicating Poor Salmon Returns
1992	870	272	31%	7%
1993	979	514	53%	8%
1994	933	345	37%	1%
1995	1,011	207	20%	1%
1996	951	230	24%	6%
1997	915	213	23%	6%
1998	970	593	61%	47%
1999	1,024	385	38%	18%
2000 [a]	932	592	64%	77%
2001 [a]	885 [b]	496	56%	27%
2002 [a]	799 [b]	437	55%	25%
Eleven Year Average 1992-2002	934	389	42%	20%

Note: This question was altered after 2002 season. Subsequent results are included in Appendix B13.

[a] A different method from prior years was used from 2000 to 2002 to provide an indication of the quality of the salmon runs by species. The method used was a weighted average expressed in percent of Chinook, summer chum, fall chum, and coho salmon responses from households that indicated poor salmon runs by species contributed to not meeting their needs.

[b] Total number of households that answered this survey question.

Appendix B13.–Households responses assessing their success of subsistence salmon needs being met (in percent), by species, Yukon Area, 2003–2006.

			Chinook Salmon				
			Total Number	Household Responses		Household Responses	
	Total	Households	of Household	Indicated ≤ 50% Needs Met		Indicated > 50% Needs Met	
Year	Households	Contacted	Responses [a]	Responses	Percent	Responses	Percent
2003 [b]	2,351	920	639	223	35%	416	65%
2004	2,274	1,055	693	203	29%	490	71%
2005	2,231	1,022	749	223	30%	526	70%
2006	2,398	1,057	856	401	47%	455	53%
2003-2005 Avg	2,285	999	694	216	31%	477	69%
			Summer Chum Salmon				
			Total Number	Household Responses		Household Responses	
	Total	Households	of Household	Indicated ≤ 50% Needs Met		Indicated > 50% Needs Met	
Year	Households	Contacted	Responses [a]	Responses	Percent	Responses	Percent
2003 [b]	2,351	920	421	152	36%	269	64%
2004	2,274	1,055	542	187	35%	355	65%
2005	2,231	1,022	570	165	29%	405	71%
2006	2,398	1,057	686	247	36%	439	64%
2003-2005 Avg	2,285	999	511	168	33%	343	67%
			Fall Chum Salmon				
			Total Number	Household Responses		Household Responses	
	Total	Households	of Household	Indicated ≤ 50% Needs Met		Indicated > 50% Needs Met	
Year	Households	Contacted	Responses [a]	Responses	Percent	Responses	Percent
2003 [b]	2,351	920	181	58	32%	123	68%
2004	2,274	1,055	210	81	39%	129	61%
2005	2,231	1,022	380	145	38%	235	62%
2006	2,398	1,057	408	220	54%	188	46%
2003-2005 Avg	2,285	999	257	95	37%	162	63%
			Coho Salmon				
			Total Number	Household Responses		Household Responses	
	Total	Households	of Household	Indicated ≤ 50% Needs Met		Indicated > 50% Needs Met	
Year	Households	Contacted	Responses [a]	Responses	Percent	Responses	Percent
2003 [b]	2,351	920	116	40	34%	76	66%
2004	2,274	1,055	177	71	40%	106	60%
2005	2,231	1,022	226	104	46%	122	54%
2006	2,398	1,057	181	109	60%	72	40%
2003-2005 Avg	2,285	999	173	72	41%	101	59%

[a] Total number of households surveyed who answered this question for each salmon species.

[b] In 2003, the survey question "How successful was your household in meeting its subsistence salmon needs?" (indicated by percent success) targeted primarily only those households selected to be surveyed that indicated they subsistence fished for salmon.

APPENDIX C. HISTORY OF REGULATORY CHANGES

Appendix C1.–Definitions and a brief history of regulatory changes made to the Yukon Area Alaska subsistence and personal use salmon fisheries since 1960.

Definitions: Sec. 16.05.940. In AS 16.05 - AS 16.40

(25) "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries

(31) "subsistence fishing" means the taking of, fishing for, or possession of fish, shellfish, or other fisheries resources by a resident domiciled in a rural area of the state for subsistence uses with gill net, seine, fish wheel, long line, or other means defined by the Board of Fisheries;

(33) "subsistence uses" means the noncommercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural area of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, and for the customary trade, barter, or sharing for personal or family consumption; in this paragraph, "family" means persons related by blood, marriage, or adoption, and a person living in the household on a permanent basis

History of regulatory changes:

1960

- Alaska Department of Fish and Game is given responsibility to manage all Alaska subsistence and commercial fisheries.
- Commercial fishing is open six days per week, subsistence fishing is open 5.5 days per week.
- Once commercial fishing season ends, subsistence fishing is open 7 days per week.

1961

- Lower Yukon Area (Districts 1 – 3) commercial fisheries are open 4 days per week.
- Directed fall chum salmon fishery begins.

1962

- Four commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing in the Lower Yukon Area is reduced to 4 days per week (concurrent with commercial).

1974

- Six commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing restrictions are implemented along the southern portion of the Dalton Highway.
- Upper Yukon Area (Districts 4 – 6) begins concurrent subsistence and commercial fishing 5 days per week.
- Subsistence fishing schedules are linked to commercial fishing schedules in Districts 1-6.

1974–77

- Legalized sale of salmon roe from Yukon Area subsistence caught salmon.

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1976

- Limited entry begins for Yukon River commercial fisheries.
- Streams crossing the Dalton Highway north of the Yukon River are closed to subsistence fishing.

1977

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the commercial Chinook salmon season.
- Lower Yukon Area is reduced to subsistence/commercial fishing 3.5 days per week during the fall chum salmon season.

1978

- Passage of the *State of Alaska Subsistence Act*, which provides a rural subsistence priority in times of shortage.
- Commercial salmon roe fishery begins in the Upper Yukon Area.

1979

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the fall chum salmon season.

1980

- ANILCA (*Alaska National Interest Lands Conservation Act*) provides for a rural subsistence priority on Federal lands.

1980–89

- Unified management of subsistence fishing by the State of Alaska consistent with ANILCA and the *State of Alaska Subsistence Act.*

1981

- Commercial fishing periods in the Lower Yukon Area can be established inseason by state emergency order.

1982

- Tanana River Subdistrict 6-C Subsistence Management Plan established.

1983–84

- Lower Yukon Area subsistence periods established inseason by emergency order.

1986

- Personal use fisheries created for Alaska residents living in non-rural areas. Non-rural residents are classified as "personal use" fishermen rather than subsistence fishermen regardless of where they fish.

1987

- Regulations for a personal use fall chum salmon fishery established in the Yukon Area.
- Regulatory *Yukon Area Fall Chum Salmon Management Plan* established.

1988

- Subdistricts 6-A, 6-B and 6-C subsistence and personal use periods are limited to two 42 hour periods per week.
- "Old Minto Area" is open to subsistence salmon fishing 5 days per week.
- Upper Tanana Area remains open to subsistence fishing 7 days per week.
- Regulations for personal use fisheries for all salmon species established in the Yukon Area.

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1990

- Court case removes rural residency requirement for subsistence participation (*McDowell v. State*).
- Regulatory *Yukon River Summer Chum Salmon Management Plan* established.
- Regulatory *Tanana River Salmon Management Plan* established.

1992

- Alaska divided into subsistence and non-subsistence areas. Personal use fishing only allowed within the non-subsistence areas.
- Upper Yukon Area commercial periods established inseason by emergency order.

1993

- Regulations implemented separating subsistence and commercial salmon fishing times in Districts 1-3 and Subdistrict 4-A (prior to 1993 subsistence and commercial periods coincided).
    - In Districts 1-3 subsistence salmon fishing is open 24 hours/day until commercial season begins. Once commercial fishing begins subsistence fishing is closed 18 hours before, during and 12 hours after each commercial period. Additional periods for subsistence salmon fishing may be authorized.
    - Subdistricts 4-B, 4-C, 5-B and 5-C subsistence salmon fishing is open 7 days per week until commercial season begins, then commercial and subsistence periods coincide. Additional periods for subsistence salmon fishing may be authorized.
    - Koyukuk River, Kantishna River and Subdistrict 5-D remain open to subsistence salmon fishing 7 days per week.
- Court case declares subsistence and non-subsistence areas are unconstitutional and subsistence salmon fishing again allowed statewide (*State v. Kenaitze Indian Tribe*).
- Regulatory *Toklat River Fall Chum Salmon Rebuilding Management Plan* established.
- Amounts necessary for subsistence was defined for Yukon-Northern Area:
    - 348,000–503,000 (all salmon species combined).

1994

- Subdistrict 5-A subsistence salmon fishing is allowed 5 days per week once commercial season ends.
- Regulatory *Anvik River Chum Salmon Fishery Management Plan* established.

1995

- Alaska Supreme Court reverses decision in *Kenaitze* case and Alaska is again divided into subsistence and non-subsistence areas. Personal use fishing is only allowed within the non-subsistence areas.
- Ninth Circuit Court finds that Federal jurisdiction for fisheries should be extended to navigable waters on Federal lands (*State of Alaska v. Babbitt* a.k.a. *Katie John decision*). US Senator Stevens delays implementation.

1998

- Subdistrict 5-A subsistence salmon fishing is allowed 7 days per week once commercial season ends.
- Regulatory *Yukon River King Salmon Management Plan* established.

1999

- Subdistrict 5-A subsistence salmon fishing is returned to 5 days per week once commercial season ends because in 1998 Toklat River escapement goals were not met.
- Regulatory *Yukon River Coho Salmon Management Plan* established.

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2000

- U.S. Fish and Wildlife Service begins first season of joint subsistence fisheries management authority with ADF&G in portions of the Yukon Area.

2001

- Subsistence fishing schedule "windows" established for times of conservation implemented throughout the entire Yukon River Area when there is no commercial fishing season:
    - Districts 1-3 area open to subsistence salmon fishing for two 36 hour periods per week.
    - District 4 and Subdistricts 5-B and 5-C are open to subsistence salmon fishing for two 48 hour periods per week.
    - Subdistrict 5-A, 6-A and 6-B (includes the Kantishna River) are open to subsistence salmon fishing for two 42 hour periods per week.
    - The "Old Minto Area" is open to subsistence salmon fishing 5 days per week.
    - The Coastal District, Koyukuk River and Subdistrict 5-D are open to subsistence salmon fishing 7 days per week.
    - Subdistrict 6-C is open to personal use salmon fishing for two 42 hour periods per week.
- Amounts necessary for subsistence defined by salmon species for Yukon Area:
    - Chinook salmon: 45,500–66,704 fish
    - Summer chum salmon: 83,500–142,192 fish
    - Fall chum salmon: 89,500–167,900 fish
    - Coho salmon: 20,500–51,980 fish

2004

- *Yukon River King Salmon Management Plan*.
    - During times of chum salmon conservation, the commercial fish wheel season may be closed by emergency order and immediately reopen the season during which set gillnet gear may be used instead of a fish wheel.
- *Yukon River Drainage Fall Chum Salmon Management Plan* revised.
    - Plan to be implemented from July 16 through December 31 to ensure adequate escapement for fall chum salmon into the Yukon River drainage and to provide management guidelines to ADF&G.
    - Subsistence fishing schedule of seven days a week fishing in the Kantishna River.
    - Returned Subdistrict 5-A to two 48-hour periods per week from 6:00 pm. Tuesdays until 6:00 p.m. Thursdays and from 6:00 pm. Fridays until 6:00 p.m. Sundays.
- *Toklat River Fall Chum Salmon Rebuilding Management Plan* repealed and elements of the plan incorporated into the *Yukon River Drainage Fall Chum Salmon Management Plan*.
- *Tanana River Salmon Management Plan.*
    - In Subdistricts 6-A and 6-B, through September 30, the subsistence salmon fishing periods are from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 p.m. Mondays until 12:00 Wednesdays, unless altered by emergency order. This allows for possible seven days a week subsistence fishing beginning October 1.
- In Subdistrict 4-A, king salmon may be taken during the commercial fishing season with drift gillnet gear only for two 48-hour fishing periods per week, by emergency order from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays and from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays.

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- New subsistence required permit areas in portions of the Koyukuk River along the Dalton Highway and Yukon River drainage from Garnet Island to Hess Creek:
    - South Fork of the Koyukuk River drainage upstream from the mouth of the Jim River and the Middle Fork of the Koyukuk River drainage upstream from the mouth of the North Fork. The Koyukuk River areas along the Dalton Highway were closed but are now opened for subsistence fishing for nonsalmon species with permit and gear stipulations. Gillnets gear may be used only from November 1 through June 30 and a gillnet mesh size may not exceed three and one-half inches.
    - Yukon River drainage upstream from the westernmost tip of Garnet Island to the mouth of Hess Creek of Subdistrict 5-C (encompassing the community or Rampart) in an effort to document harvest by transient fishermen. This change now requires a subsistence fishing permit in the entire Subdistrict 5-C.